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In this issue

GROUPING OF PUPILS
JANE FRANSETH, ALEXANDER FRAZIER
HAROLD DRUMMOND, ROBERT E. BILLS

THE NURSERY SCHOOL
LILLIAN L. GORE

JUNE 1963

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Commissioner Keppel says—

In a free society we cannot dictate the citizen's educational choice; we can only provide him with the opportunity to make that choice.

The manpower needs of our Nation become more complex every decade. We need more and more individuals with specialized skills requiring longer periods of training. But how can we expect the right number of the properly qualified to choose the right programs of preparation to meet the manpower needs of the Nation?

In a free society, we cannot dictate the choices: we can only plan and provide. We can ascertain manpower needs in advance; provide the needed educational facilities and resources; provide our young people with accurate and complete information and guidance; provide inducements and opportunities which will encourage them to choose wisely, in the Nation's interest as well as in their own; and build into their educational preparation sufficient flexibility to make them able to adjust to changing needs.

To cope with the rapidity with which knowledge is changing, today's student must become a self-propelled learner. The way he learns must be a way that provides for continuous renewal of what he knows, continuous improvement of his actions and reactions. He must be able to apply to learning—to life itself—a method of inquiry which helps him face new or unfamiliar situations with confidence that, if he does not know the answer, he knows how to go about finding it.

Adapted from an address to the Conference on Federal Programs for Colleges and Universities, American Council on Education, on June 21, 1963.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE • ANTHONY J. CELEBREZZE, *Secretary*
OFFICE OF EDUCATION . . . FRANCIS KEPPEL, *Commissioner*
MARTIN MAYES, *Acting Director, Office of Information*

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Notes on the Notable

FEDERAL PROGRAMS AND ACTIVITIES

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

The State Department explains itself to the people

THE PEOPLE of the United States have just been presented a report by the Department of State.

Department of State 1963 is a handsome book. It has blue and scarlet end papers that contrast sharply with the white of the cover. And it contains dozens of dramatic photographs: the first shows two young guards at attention beside the memorial plaque for Foreign Service officers who lost their lives while on active duty; the last shows Peace Corpsman Dick Van Leonen at work with his survey team in Tanganyika; and in between these two are such others as one of Ambassador Stevenson exhibiting the photographs of Soviet missiles in Cuba, one of Ambassador Galbraith joining Indians in a ceremonial dance, one of President Kennedy signing the Trade Expansion Act; and one of a room in the U.S. Embassy in London where, on the day the picture was taken, 273 persons received visitors' visas.

In a way the book is the megaphone that Charles Evans Hughes wished for when he was Secretary of State: "I used to wish that I could get on the roof of the State Department with some kind of megaphone which would reach from the Atlantic to the Pacific and tell everything that I had done, and read every telegram and dispatch, and leave it to the American people. The trouble is that they do not know and we need to impart."

The book does not tell everything but it tells a great deal—and suggests even more—about the work of the Department of State at home and abroad during the past year. Dean Rusk explains, in the introduction, why the book was written: First he quotes another Secretary of State, Elihu Root— ". . . a democracy which undertakes to control its own foreign policy ought to know something about the subject"—and then he says, "I feel strongly that we have a duty to explain both our actions and our purposes to the greatest possible extent; moreover, our ability to pursue effectively any major course of foreign policy is in direct relation to the degree of public understanding of and support for such policies."

Department of State 1963 is sold by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C., for $1.50.

Congress on the deaf

GALLAUDET COLLEGE will be host to hundreds of teachers of the deaf and others working with the deaf from all over the world during the International Congress on Education of the Deaf, June 22–28. The Council on Education of the Deaf (Alexander Graham Bell Association for the Deaf, the American Instructors of the Deaf, and the Conference of Executives of American Schools for the Deaf) is sponsoring the congress in the United States.

Participants will discuss and study modern methods and scientific techniques for teaching and rehabilitating the deaf. Authorities in different fields will present papers. One special event will be a series of demonstrations on the nature and extent of services offered by Gallaudet's Counseling Center for the Deaf.

In addition to taking part in conference sessions, participants will attend an open house sponsored by the U.S. Department of Health, Education, and Welfare and a reception held at the Pan American Union, and will tour the city of Washington.

Guests from abroad (except Canada) will be housed at Gallaudet. The Office of Education will arrange for delegates from any country except Canada and the United States to visit schools and classes for the deaf in the United States.

The Georgetown University School of Linguistics will have charge of translating into French, German, and Spanish the papers read at the congress. The International Business Machine World Trade Corp. will conduct the mechanical part of the translating.

The first international congress on the deaf was held in Vienna in 1873; the last previous congress in Manchester, England, in 1958. The congress has met in the United States once before—in 1933 at the New Jersey School for the Deaf.

AEC science fair winners

TEN HIGH SCHOOL science students received certificates of achievement from the Atomic Energy Commission for outstanding nuclear-related exhibits at the 14th National Science Fair-International, held in May in Albuquerque. In addition, AEC has invited each winner and his science teacher to attend a special "Atomic Energy Research Orientation Week" program in August at the Commission's Argonne National Laboratory. Ten other science fair exhibitors won honorable mention and will be alternates to the orientation week program.

This is the second year that AEC has given awards to student exhibitors at the science fair.

Forest Services CD program

ON MAY 2 about 200 employees of the Forest Service of the U.S. Department of Agriculture completed a 12-hour civil defense adult education program

through the public schools of the District of Columbia and became the first employees in a Federal department to complete the course as a group. Their program was tailored to the need of the Forest Service. Two retired foresters, trained for the purpose, conducted the course.

The Forest Service plans to conduct similar programs for its field employees through State programs.

Wayne O. Reed, Deputy Commissioner of Education, who attended the ceremony at which the Forest Service employees received certificates, commended the Service for conducting the course and expressed the hope that other Federal agencies would follow its lead.

USDA Forest Service

Staff members of the U.S. Forest Service who had taken the 12-hour adult education civil defense course received certificates of completion during a ceremony in the Department of Agriculture. Here, they stand to be honored.

Group asks for more nurses

A 24-MEMBER consultant group on nursing has recommended to the Surgeon General of the United States that the Federal Government greatly expand its program of aid to nursing and nursing education. It recommended, for instance, that the Public Health Service expand its programs to include loans and scholarships for students; financial aid to State and other public and nonprofit institutions for nursing training; grants to improve and expand nursing programs in colleges, universities, and hospitals; assistance to professional nurses to receive advanced training; and support for research.

The group called for an estimated 680,000 professional nurses in practice by 1970, including 120,000 with academic degrees, or 130,000 more than in practice now. To reach this goal, according to the group, professional nursing schools must graduate 53,000 nurses a year by 1969, a 75-percent increase over the number graduated in 1961.

The group, headed by Alvin C. Eurich, vice president of the Fund for the Advancement of Education, represented nursing, medicine, hospital administration, and the general public.

The recommendations are reported in full in the publication "Toward Quality in Nursing," which can be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D.C., for 50 cents a copy. Single copies are available from the Public Health Service, Washington 25, D.C.

NSF fellowships

THE NATIONAL Science Foundation will accept applications under its current senior postdoctoral fellowship and science faculty fellowship programs until October 7, for awards to be made in December. Through the program, fellows will study or conduct research at any appropriate United States or foreign nonprofit institution in a science, such as mathematics, physics, medicine, anthropology, geography, economics, biochemistry, and geochemistry.

Senior postdoctoral fellowships are for scientists holding doctoral degrees, or their equivalent in education or experience, for at least 3 years. Science faculty fellowships are for college teachers of sciences, mathematics, or engineering. Applicants must have baccalaureate degrees or their equivalent, be teaching at a college or university, and intend to continue teaching.

Stipends for successful applicants will be computed on a salary-matching basis, up to $15,000 for a 12-month tenure. A limited travel allowance for a fellow and his dependents will be available.

The current program includes 100 senior postdoctoral fellowships and 400 science faculty fellowships.

Application materials can be obtained from the Fellowships Section, Division of Personnel and Education, National Science Foundation, Washington 25, D.C.

Lunches for Peruvian children

ABOUT 400,000 PERUVIAN schoolchildren are receiving lunches this school year under an Alliance for Progress–Food for Peace program. In 1962 about 183,000 children received lunches; in 1961, the first year of the program, about 30,000.

In all, nearly 10,000 tons of food—wheat flour, nonfat dry milk, cornmeal, bulgur wheat cereal, and vegetable oil—will be sent by the Agency for International Development for use by the lunch program this year.

A national council under the Peruvian Ministry of Public Health and Welfare operates the program. A representative of AID serves as an adviser, and 46 Peace Corps volunteers work with the program in different parts of Peru.

Grouping children for instruction—a conference points the way

Last spring the Elementary Schools Section of the Office of Education conducted a 2-day conference on research in the grouping of children for instruction. In her introductory remarks, Helen K. Mackintosh, Chief of the Elementary Schools Section, said that the major purpose of the conference was to get the assistance of the participants in examining research evidence and in identifying the significant factors in grouping elementary school children effectively for learning. Some time before the conference, the Office had invited nine specialists in the field to examine a preliminary draft of the report, Grouping Children in the Elementary School: Research and Implications, *prepared by members of the Elementary Schools Section, and to present statements on the subject at the conference. At one of the opening sessions Jane Franseth, Office specialist in rural education and director of the project, talked about the reasons for the study and briefly summarized some of the findings of the Office study. Abstracts of Dr. Franseth's talk and of statements by three of the guest consultants are presented in this issue; other abstracts will follow in later issues.*

Research in grouping: A review

JANE FRANSETH

FOR MORE than a hundred years teachers and administrators have been struggling with problems of organizing the elementary school. Although many studies have been conducted for the purpose of determining the relative effectiveness of different ways of grouping children on the basis of pupil achievement, the findings have been inconclusive. Consequently, teachers, principals, and supervisors are still searching for sound answers to their questions. Many of them and some parents, too, write to the Office of Education for information about grouping children in the elementary school.

The questions vary considerably, but these are perhaps typical: What are the relative merits of ability versus homogeneous grouping? Do children grouped according to ability learn more or less than children grouped heterogeneously? What do research findings tell us about the relative effectiveness of ability versus heterogeneous grouping?

In an effort to find dependable answers to these and other questions, the Elementary Schools Section has examined numerous research studies on grouping. In our review of studies we have searched particularly for answers to such questions as these:

Do some grouping procedures make more difference than others in helping pupils learn to read or spell or write? In helping pupils acquire skills in critical thinking? In developing creativity? Or in developing the intellectual ability to evaluate evidence as a basis for making sound judgments?

What are the relative values of grouping children according to need, interest, friendship, special abilities, special difficulties, or achievement levels? Does flexibility in grouping practices affect the kind, amount, or quality of what a pupil learns in his class?

To what extent do ways of grouping children make a difference in helping them become responsible, capable, thoughtful, creative persons, increasingly able to live in accord with democratic values?

Do ways of grouping make a difference in helping each child reach his full potential for a creative and useful life?

Needless to say, the research available does not answer all of these questions. Some may not be answerable by way of research, since the answers depend on the beliefs and values a school and its patrons hold. Other questions are particularly hard to answer, for the answers would require knowledge and understanding of many interrelated factors in the educative process. For example, in the Elementary Section, we sometimes find it hard to offer useful suggestions in response to inquiries that give little or no information about the school program or about the purposes the school is attempting to accomplish. For a case in point, take the question, Do children grouped according to ability learn more or less than children grouped heterogeneously? Before responding to this question we would need to ask, "Learn more of what? for what purpose?" Any school practices, educators generally assume, should be determined in the light of what the school wants children to learn. If this assumption is justified, then the choice of particular grouping methods should be determined in the light of the purposes to be accomplished.

This is not to say, however, that the research reports we examined do not answer any of our questions. Certainly they do, but the answers are limited, for much of the research evidence currently available is limited largely

to the effects of grouping procedures on pupils' academic achievement—in reading, for example—as measured by standardized tests. Few studies have been conducted to determine possible effects of different organizational methods on pupils' growth in ability to think, on the development of such values as respect for the worth of the individual, on the development of creativity, or on the development of adequate perceptions of self.

Unfortunately few studies on grouping report anything about the role of the teachers, what they did, how they worked with the children, or about the interaction of teachers and pupils. Furthermore, the studies examined report very little about the teachers as persons. It may well be, for example, that differences in pupils' gains in achievement sometimes attributed to the particular grouping procedures used may be the result of what happens between the teacher and the children after groups are formed.

As Dr. Mackintosh has said, we hope in this conference to increase our knowledge and deepen our understanding of the many factors in grouping pupils for learning. Perhaps, too, the conference will stimulate research that will help us identify the effects of different grouping procedures on children's gains in learning—including grouping on such bases as friendship, interest, committee work, and others that serve different purposes and changing needs. We hope also that the conference will help us find answers to questions about the relation between certain qualities of the teacher and the gains his pupils make.

A brief summary of the findings and conclusions from our reviews of studies available follows.

★ Research on the relative merits of different organizational procedures as they affect pupils' achievement in the elementary school is extensive, but the results are, as we have said, inconclusive and indefinite.

★ Many studies made since the turn of the century and before compare achievement gains of pupils grouped according to ability (mental maturity, IQ, attainment level) with gains made by their counterparts in heterogeneously grouped classrooms. The findings seem to follow no definite pattern. Available evidence indicates that factors other than the particular grouping methods used account for any differences that may show up in achievement tests between children grouped according to ability and those grouped heterogeneously.

★ We reviewed studies of pupils grouped according to several ways of identifying ability—mental maturity ratings, levels of achievement especially in reading, teachers' judgments—and by a combination of types. And we reviewed as many types of heterogeneous grouping: one grade to a classroom—made up of pupils representing the normal range of abilities; the multiple-graded classroom, the nongraded classroom or continuous progress organization, and some classrooms in which an effort had been made to widen the range of individual differences in maturity, achievement, and age. Some studies show gains in favor of ability grouping and some in favor of heterogeneous grouping. Others show little or no statistically significant differences among grouping methods in pupil achievement as measured by standardized tests.

★ One fact revealed in our studies may be of special interest. It is that, on the average, achievement gains made by pupils in classrooms representing *more than the usual range of differences* among pupils were higher than the average gains made by pupils in ability-grouped classrooms. However, the number of such situations (wider than usual range of abilities in a classroom) examined is too limited for a conclusive statement on this point.

★ Research shows that human variability and a wide range of individual differences constitute normal phenomena. When teachers and administrators understand and accept this fact, some authorities maintain, they recognize individual differences as a precious asset, that differences among children help to enrich resources for learning in the classroom. There is reason to believe that, consciously or unconsciously, children help to improve each other's opportunities for learning.

★ Among the serious handicaps to full development of a child's potential, according to some authorities, is the single-grade standard, which in some classrooms tends to keep a child from making full use of resources available and to limit the extent to which he has a chance to make full use of his potential.

★ Many studies on grouping deal with the effects on academic achievement as measured by standardized tests, but only a few have attempted to examine the effects of grouping procedures on children's attitudes, self-concepts, and other factors in their development. Although the number of such studies is too limited for more than a tentative conclusion, there is reason to believe that, for some children at least, the practice of ability grouping does produce undesirable effects.

★ Little research has been conducted to determine the possible effects of different ways of grouping on children's growth in such areas as ability to think, on the development of creativity, or on the development of human values—respect for the worth of the individual, human dignity, and the like.

★ Among the most enlightening results of our examination of the research was our reinforced and increased understanding of the difficulties in attempting to divide children according to ability.

These, then, are the major conclusions of our preliminary study, but they are not the end of our search for sound and practical answers to our questions.

Learning in groups: Some considerations

ALEXANDER FRAZIER

TO MOST OF US, continuous attention given to how best to group children is warranted because we see the group as much more than a center of instruction. How groups are composed, how they are staffed, how their time is scheduled, and how they are expected to operate—we see all these as more than simply details for the school administrator to work out. But what do we think really matters in grouping pupils? Let us look at some points currently being considered.

What groups are good for

> Community . . . is the being no longer side by side but *with* one another of a multitude of persons. And this multitude, though it also moves toward one goal, yet experiences everywhere a turning to, a dynamic facing of, the other, a flowing from *I* to *Thou*. Community is where community happens.—Martin Buber, "Dialogue," in *Between Man and Man*.

A group of pupils is potentially much more than simply a roomful of children for instruction, though it is that, too. A group can be many things:

1. A resource for learning, which provides an opportunity for its members to learn from one another—new information, new values, and new ways of behaving.

2. A testing ground where pupils learn about all kinds of subjects, including themselves.

3. A creator of "common learnings" (the general knowledge and skills that all citizens need) through interaction, consensus, and continuous extension of ideas and deepening of insight and understanding.

4. A context for learning, which depends upon relationships continuing in time so that pupils may learn to plan together, to lead others, and to work toward common ends.

5. A kind of culture, a community rather than merely a "collectivity," which Buber defines as "not a binding but a bundling together."

New ideas that affect our thinking about groups

> With team teaching, Billy can look forward to new acquaintances in each room.—Arthur D. Morse, *Schools of Tomorrow—Today!*

Behind many of the current proposals for better ways of grouping pupils and scheduling their time for learning are new fears, new convictions, and new ideas that we need to understand. In the proposals themselves these ideas may sometimes be hard to see because we cannot accept the immediate purposes they present or the context in which the proposals appear. I refer to such fears and ideas as these:

1. The fear that the individual may get lost in the multitude, that emphasis on the same information and skills for all may lead to conformity.

2. The fear that emphasis on group instruction may have crowded out opportunities for independent study and research that pupils need if they are to become self-directing and to develop their talents.

3. A new sense of urgency for making sure that some pupils are not held back by slower pupils.

4. A belief that a single teacher is incapable of dealing with all a pupil's needs for knowledge and that, with less to teach, a teacher could become more highly specialized and thus more useful; that with multiple teachers, even for a single course or class, a pupil would learn more.

5. A new conviction that some needs of elementary school pupils are not met when they are grouped with pupils their own age, that they need to be in groups with other pupils, possibly both younger and older.

6. A contention that the size of the group has little or no effect on pupils' learning.

7. A contention that less time than we have thought necessary should be provided for pupils to have experiences in small groups, that only enough time for essential interaction is necessary, and that more time should be provided for some study in large groups—in getting information, for example—and for study outside the group.

8. A contention that better ways of teaching than by oral instruction can be found, that the drudgery can be removed from teaching, and that the teacher can become counselor and stimulator of learning.

9. A contention that master teachers (there are not now and perhaps never will be many), using such devices as large classes and television, can greatly improve instruction.

Doubts to be expressed

> "No," said the priest, "it is not necessary to accept everything as true, one must only accept it as necessary."

DR. FRAZIER *is director, Center for School Experimentation, The Ohio State University.*

"A melancholy conclusion," said K. "It turns lying into a universal principle."—Franz Kafka, *The Trial*.

As professional educators, we view many of the proposals for different ways of grouping and scheduling as uninformed, if not injurious. We suspect both the breadth of the background in education and the motives of some of the sponsors. We should bring our doubts out into the open and look at them directly. We may, for example, think that some sponsors of these ideas are interested in only some kinds of learning, only in the bright pupils and master teachers; that they are contemptuous of most teachers and slow and needy pupils; that they do not understand the great variety of individual differences, and the facts that the teacher must continuously try to provide for differences, that children learn from one another, that there is value in pupils learning social customs and standards of behavior, and that both individual and the group can learn in a group setting. We may think that other sponsors merely desire to save money or to accommodate to rising enrollments and the threat of a teacher shortage, or that they are preoccupied with gadgetry and materials and have no well-developed conception of learning as discovery and the place of materials in such a conception. Some of us may think that sponsors are more interested in indoctrinating than in educating pupils.

Convictions to be retested

"Courage does not need the safety of an unquestionable conviction. It includes the risk without which no creative life is possible."—Paul Tillich, *Dynamics of Faith*.

It must now be clear to all of us that our beliefs about what groups are good for have been challenged on almost every count. And it must be just as clear that we need to state as well as we can the values we see in group experience so that we can not only identify the essentials to be held to but also ask whether there are new ways to realize these values. Let us look at and retest our own convictions, among them these:

1. Pupils of most ages need knowledge of social behavior and customs which they can acquire only by interaction with others of the same age.

2. Many kinds of learning are possible only in a group in which members have time enough together to get to know each other well.

3. A teacher has to be with the same group of pupils for a considerable length of time in order to find out the needs of the individuals in it and to plan for them to have opportunities for suitable experiences.

4. Enduring relationships between a teacher and a member of a group of pupils and among the pupils themselves are basic to their successful learning; if such relationships are to develop, the group and the teacher must spend most of each day together.

5. Pupils learn to live democratically, to create a sense of community, and to acquire the many skills they need only in the daily give and take of their home group, and such experience is worth the teacher's continuous attention.

6. Almost all the kinds of learning we most value in school cannot take place unless pupils and teacher have opportunity for continuous interaction.

Issues to be explored

"Some time ago a woman, believing me to be in sympathy with all scientific innovations concerning the school, showed me with evident satisfaction a corset or brace for pupils. She had invented this and felt that it would complete the work of the bench. . . . All this is the logical consequence of a material application of the methods of science to the decadent school. Evidently the rational method of combating spinal curvature in the pupils is to change the form of their work—so that they shall no longer be obliged to remain for so many hours a day in a harmful position. It is a conquest of liberty which the school needs, not the mechanism of a bench."—Maria Montessori, *The Montessori Method*.

With all our feelings out in the open, we may need to take the new ideas seriously and put our convictions earnestly to the test. The rash of lay or semiprofessional proposals may be attempts to answer the wrong questions, but they could also be symptoms of something wrong; they could also mean that something remains to be done in addition to what we ourselves recognize.

Can we identify some issues that interest us and that we feel we can afford to explore professionally? Let me suggest a few for a start:

1. Are we bringing pupils enough richness from adults in our communities? Could we find ways to provide for more professional assistants in elementary schools? Science consultants, for example?

2. Are we doing all we can to help children gain the knowledge that can come from their association with children of different ages? What knowledge comes from such association and how much do we value it? Can we organize pupils of different ages into classes that would be in keeping with our convictions?

3. Do we need to think through again possible uses of teaching large groups? Are there values that a pupil can gain from experiences as part of an audience that we are not now recognizing in our programs? Can a mass medium be used in large groups on its own terms; that is, can it be used as a medium carrying messages which are valuable in themselves rather than as instruction or aids to instruction?

4. Are we offering pupils maximum opportunity to learn through interaction in most of our classrooms? Do our pupils get the values we think they do from small groups and enduring relationships? Could we do better?

5. Do we need to reexamine provisions for independent learning in our programs? Do we plan to create new programs with room for different interests and abilities? Do we use school time wisely in independent studies? Do all children have time to study independently?

6. Could we think more deeply about the problem of simultaneously insuring group learning and fostering individual creativity? Can we be more inventive by varying our routes? Do we waste time in letting pupils learn too little too well? Do we value pupils' differences and try to develop them?

7. What is the minimal time a child needs with one teacher to acquire a feeling of security? Could we try out new combinations of pupils without endangering the home base?

8. Has our concern for meeting group standards of achievement impeded pupils' progress? Have grade standards and too-tight confinement to study materials interfered with pupils' learning? Can we loosen up the situation within grades as an alternative to cross-grade achievement grouping?

9. Is it possible that we could learn to do a better job of instruction if we depended less on oral teaching? Do we waste time in trying to provide too much group instruction? Could we use some closely programed materials on our own terms or develop some of our own?

10. If we tried, could we ourselves become more inventive in proposing and testing better bases for setting up group and individual relationships that might meet newly recognized needs on a truly professional basis? What might such better bases be?

GROUPING

A preliminary statement

HAROLD DRUMMOND

MOST U.S. CITIZENS, probably including most educators, seem to be looking for and eager to adopt panaceas in education. Few persons in the profession or out seem willing to face the hard facts of life and one fact in particular: *What happens to groups after they are formed is of greater significance than who is excluded from or included in the group.* We as a people seem to be willing just now to spend millions of dollars on developing television so that the influence of the master teacher can be spread widely; developing programed materials which can be used at school and at home; trying new organizational schemes with tracks, teams, and groups. But yet we are unwilling to spend equal amounts to reduce the size of classes to about 20 pupils per teacher, to make true individualization of instruction possible.

The hard facts of life are that we have never really tried—on a large scale—to provide a spacious classroom, a well-educated teacher, a rich base of learning materials and supplies, and good consultant services for every 20 youngsters. Yet almost every time we have tried to provide an organizational scheme superior to the grouping of pupils of different ages (as in a 2-room school), we have stubbed our toes badly.

It may be that—

—the research which has been done is faulty;

—we haven't yet developed, but will in time develop, better ways of separating pupils into teachable groups;

—new techniques of instruction being developed by team teachers, television teachers, and audiovisual experts may in time make instruction of large groups effective;

—programed courses will provide for better sequential learning experiences for a majority of pupils;

—organizational structures which provide for both vertical and horizontal grouping may have sufficient flexibility to provide a wholesome intellectual climate for every pupil;

—the dreams sketched in *Images of the Future* (J. Lloyd Trump) may turn out to be realities, not nightmares;

—the work of the teacher will change markedly—

But I doubt it.

On the basis of the research summarized for this meeting, I would confidently predict that the future will in many ways be more like the past than the present. I would also predict that we will soon develop and test with elaborate research designs a theory of learning and teach-

DR. DRUMMOND *is chairman of the Department of Elementary Education, University of New Mexico.*

ing which is eclectic and which will result in some of the following conditions:

Twenty to twenty-five pupils per classroom.

Classes deliberately planned to include pupils of different ages (6-, 7-, 8-year-olds) and varying widely in ability.

One teacher responsible for doing most of the teaching and planning of one class, but able and willing to frequently draw on special personnel for help.

Groups which cut across age groups doing considerable work together with fair effectiveness.

Television, programed materials, audiovisual aids, and carefully written textbooks used fairly extensively by subgroups within the classroom while the teacher works with other subgroups.

More consideration for personal feelings and perceptions between principal and teacher, principal and pupil, and teacher and pupil. More recognition that how one feels about himself is important.

More attention to setting goals and raising aspirations as an essential to motivation, and to success as an essential to evaluation.

Other predictions I would make optimistically:

That before long, research—supported by the Office of Education and other governmental agencies such as the National Institute of Mental Health, national and State education associations, and professional research groups—will try to determine what happens to youngsters attending schools with different organizational structures.

That many more answers will be sought which will throw light on the pupil's perception of himself and how it is affected, if at all, by different organizational structures and grouping plans.

That more experimentation will be directed at determining the optimum conditions for pupils of different ages to learn effectively in a nongraded self-contained classroom. We may find that the schoolday is too long or that it is too short; that many materials are needed or that few are needed; that teachers need to be human relations experts or that they need to be kind, benevolent souls but hard taskmasters; that teachers are not needed.

Let the chips fall where they may. Many studies undertaken 20 years ago need to be repeated with the more sophisticated research designs now possible and with today's children. Obviously our knowledge about optimum learning conditions is sparse and the evidence is contradictory. Experimentation should not, however, be limited to the development of new models. Perhaps we will find, as I tend to believe, that the two-room school is coming back.

GROUPING

Learners or learning?

ROBERT E. BILLS

HAVE WE EVER really shown concern for the individual learner or is he a thorn in our sides? Has not our concern been for learning rather than learners, teaching rather than teachers, administration rather than administrators, and achievement rather than achievers? I believe you will agree that these are bold questions and that they probably require some clarification.

What I am asking is this: Have we ever really been concerned with individual differences, and doesn't the question of grouping, whether homogeneous or heterogeneous, indicate that we have not yet concerned ourselves with the individuality of the learner?

Let me elaborate. The psychology of individual differences, as it is taught in most colleges, is usually a course in normative statistics. Such courses deal with averages and deviations from the averages. When we look at a pupil's score we describe him in terms of how much he deviates from the average of the group. Usually we compare a pupil's deviation with some measure of group variability to see how he stands in relation to his group. We ignore his own uniqueness and see his importance only in comparisons with a group. Although we try to ignore him, the individual remains as the basic unit in educational work, and one individual cannot be added to another without destroying the individuality of both.

Granted my statements are extreme, but so are our practices. We move more and more toward the group, toward such things as helping the individual accept his role in society, toward helping him learn the things which we believe he needs to know in order to function in society, and toward the use of measuring instruments that ignore his individuality and bind him to his past instead of freeing him for his becoming. We hear over and over that we must engage ourselves in mass education because of the mass of children facing us. Let me suggest that

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we may be asking the wrong question. Instead of asking, "How can we engage ourselves in mass education?" we should be asking, "How can we educate the many who present themselves at our doors?"

When we ask, "Should we use homogeneous or heterogeneous grouping?" we are probably trying to reach a better basis for individualizing instruction. I suggest, however, that none of these methods is anything more than an administrative device to cope with the large numbers of children we are supposed to teach and the task of taking these large numbers of children in the directions we believe they should go.

Most studies of grouping try to answer the question, "Will children learn more when they are grouped in a particular way?" And we seem to mean, "Will children learn more subject matter or skill or something else if we organize them in groups in a particular way?" Our concern, although fairly nonspecific and nonspecified, seems to remain with teaching children what we believe is important, and most people remain unconcerned with helping children develop in ways which children see as important or in helping them move in self-determined directions. We use such terms as "enhancing," "modifying," and "maximizing" capacity or potential, but what do these terms really mean to us? We use them when what we are trying to do is to help a person increase his ability to be intelligent in his behavior. This goal requires us to be concerned with a multitude of factors all operating at the same time. This is difficult to manage.

But it is also difficult for us to ignore this multitude of factors when we know they are important in human behavior and human welfare. As an afterthought many studies ask, "What happens to those other things such as attitudes, values, self-concepts, etc.?"

Few directors of studies have tried to devise learning situations in which they could try to change the multitude of variables important to human welfare, human well-being, and human behavior.

I see homogeneous groups, not as an effort to get beyond subject matter and skills, but as a device for ignoring human variability and for reducing our need to concern ourselves with individual pupils. Once children are homogeneously grouped, we assume that the differences are no longer matters of concern. Nor do I see heterogeneous grouping as a deliberate effort to do any more than to teach subject matter and skills. We often hear that homogeneous grouping has harmful effects on pupils' personality and that these can be avoided in heterogeneous grouping, and that youngsters of diverse talents can learn better from each other in heterogeneous groups, and so forth. But please note: What we are saying is that if we group heterogeneously we do not have to pay attention to these variables because they will take care of themselves.

WE HAVE not tried to change the multitude of variables because we have not really seen them as of primary importance in human behavior or as primary results of education. We say, "Oh, yes, these are nice results, but are they our primary goals?" "Is not our primary goal the teaching of the skills, techniques, and knowledge required for proficiency in reading, arithmetic, and for the other skills which our children will need?" Most of us would agree that elementary schools exist primarily to teach reading skills, etc., but I imagine many of us would also agree that reading, for example, is not just a matter of practice, skill, vocabulary, and technique, but a complex behavioral task which is an expression of the total person.

But it is not always easy to convince ourselves, parents, and other adults of this. It is easier to believe that our world is rational and knowable, that the extent to which we can deal rationally with the world and have knowledge about it, to this extent we can cope with it and can become successful.

I believe, however, that we live in an unknowable world which man can use in many ways and that man imposes himself on his world and seeks to know it by means of the framework he has constructed. In contrast, though, education often takes as its task the communication of agreements which seem necessary to cause other people to see the world as we now see it or have agreed it is.

But each of us lives his life in his own individual world which does not resemble the world of any other person. Each person has experience, and the raw data of his experience differ from those of any other person. Furthermore a person is "set" to interpret his experience according to his own world.

We need to make sense of our individual world. In it we must discover consistency, and if we cannot discover it, we must impose it on ourselves through stereotypes and generalizations. And here we begin to encounter difficulty. Since generalizations are abstractions from data, they can never truly represent the data and thus never exactly fit a situation. However, if we did not abstract and generalize to arrive at some form of consistency, we would be left in a buzzing confusion of facts and would constantly receive sensory data devoid of any meaning.

Consistency of perception is necessary to existence. Our interpretations of our past experience provide this consistency and serve as a screen through which we receive new experience. Thus present experience tends to be interpreted as identical with past experience. Interpretation is more or less structure bound by the past.

One way of avoiding making our own generalizations is to attempt to adopt what we think are other people's generalizations. And one way of achieving security is to have other people accept our generalizations as meaningful to them. We see many teachers trying to have children accept their perceptions and children who are more than willing to accept the teacher's perceptions as the easy way out. We have children trying to avoid conflict by acting as if someone else's perceptions were their own, which, incidentally, may be the quickest way to develop a personality conflict.

But some children cannot accept someone else's perceptions; they must make sense of their own world. Such children often present discipline problems, leave school early, are underachievers, or appear to be poorly motivated. Too often, they are the best potential the world possesses.

TO ACCEPT another person's goal as suitable for our behavior means that we must deny our own experience and attempt to act as if the other person's experience were our own. Since we cannot experience as another does, we are left without experience on which to base our behavior. It is therefore not only difficult and at times impossible to change a person's behavior by force, manipulation, persuasion, or other means, but also usually harmful, for it causes him to deny his own experience and thus to have less experience on which to base his behavior.

If we desire to change human behavior by means of education, we must seek means other than force—either subtle or obvious. Suppose we approach the problem by asking, "What causes human behavior?"

Perceptual theory holds that what a person does is consistent with the structure of his perceptual field *at the instant of action;* that is, as a person sees, so he behaves. Man's basic drive is the need to maintain or to enhance his status. In other words, man's behavior is directed toward maintaining or enhancing his present status. When man has a choice of action he chooses to do that which offers him what he sees as the greatest possibility for raising his status. To put this more strongly, man *must* do what seems to him to be best for him at that instant.

The perceptual field of the healthy person is an ever-changing pattern, and it is doubtful that the structure at any one instant will ever again be repeated in its entirety. Thus what our perceptions and behavior are at any one instant will not be repeated exactly at any other.

To change behavior through education we must know what determines the structure of the perceptual field and why it is that the behavior of some people tends toward rigid consistency.

The key to the structure of the perceptual field is experience. And the key to intelligent behavior is a broad background of experience readily available to the behaver, without distortion or denial. Experience can be divided into a number of areas of belief. I cannot go into these areas here except to say that they may be divided into beliefs about facts, faith, superstition, values, attitudes, self-concepts, and others. The main point is that a person interprets his experience, and these interpretations are his beliefs. Although his beliefs may bear little resemblance to the beliefs of another person, they determine the structure of his perceptual field.

Once the field is structured, the structure itself begins to determine future structure. Since no one type of belief has primacy in determining behavior, behavior cannot be significantly altered by changing only one type of belief. This raises a serious question about the almost exclusive emphasis some teachers and some schools place on subject matter. It is obvious that *significant changes in behavior cannot be accomplished by subject matter alone. Intelligent behavior is dependent on the breadth of experience which is available to a person without distortion or denial at the instant of his action and on his ability to be open to new experience so that he can modify his past behavior.*

A variety of factors can cause experience not to be available or not to be available without distortion or denial. Several have particular relevance to teaching. An incomplete or damaged organism and an impaired or inadequately developed central nervous system cannot receive the experience necessary for intelligent behavior. Physiological malfunctioning resulting from disease, malnutrition, toxic poisons, and the like can also prevent the complete and undistorted reception of experience. Some of these can be treated in school, others outside the school. But here we are concerned with factors amenable to control in the classroom.

The primary factor in denial and distortion of experience is called threat. Attempts to force a person to change his perceptions usually cause him to deny and to distort his experience. If he acquires experience in ways that mean little to him, he will find little personal meaning in it and consequently ignore it. To force him to accept experience as meaningful when it is not is threatening and thus distorting.

When threatened, a person begins to defend and protect himself. He begins to deny or distort his experience, to make it what he wants it to be or thinks it should be. The greater the threat, the more he is closed to the meaning his experience had for his organism at the time he had it. The most important factor in determining a person's openness to experience is a threat.

(Continued on p. 22)

Lois Belfield Watt

The educational materials laboratory: Office of Education

Last month the Office of Education's Educational Materials Laboratory completed 10 years of service to teachers from the United States and abroad. One of the Laboratory's primary responsibilities—clearly indicated by its being a unit of the Bureau of International Education—is to help the Office improve international understanding. In this article Mrs. Watt describes how the Laboratory works toward this goal.

VISITORS to the Educational Materials Laboratory find that it has most of the physical characteristics of a library: Books stacked on shelves; tables and chairs for reading; occupants deep in study; and a palpable air of concentration. And certainly the Laboratory has many of the features of a research library. But it also has many of the features of a curriculum laboratory and of a documentation center; for, in addition to providing research facilities, it collects many of the same publications found in curriculum laboratories in the United States, and it performs some of the functions of educational documentation centers in other countries.

The staff members of the Laboratory see it as a hybrid and hope that it is growing with hybrid vigor.

The Laboratory is the living result of a joint effort by the American Textbook Publishers Institute and the Office of Education to provide a research collection of U.S. textbooks and related publications for the use of visiting educators, foreign and domestic; students of educational materials; and specialists in the development, selection, and use of materials.

The holdings

Since 1953 the Laboratory's collection has expanded from some 300 books to more than 12,000 items. These holdings include about 6,000 textbooks, 3,500 trade books, and 900 titles in the professional literature of education. Commercial publishers make new books available to the Laboratory without charge.

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The textbook collection represents the textbooks in wide use today in elementary and secondary schools in the United States.

The collection of trade books—books for supplementary reading—dates back only to 1959. It is still a small collection, but we hope that it will some day reach its goal—to be representative of the holdings of a good school library. As the ATPI is our cosponsor for the textbook collection, so the Children's Book Council is our liaison with the trade book publishers.

The collection of books relating to the profession of education, also a small one, is not intended to be comprehensive, but only representative of some trends in education in the United States.

Which books of the many hundreds published each year the Laboratory will acquire remains a matter of publishers' choice. Our criteria for selecting books for display from those we receive vary, depending on whether we are considering textbooks or trade books.

We do not evaluate textbooks or decide when to discard a title. We keep a text until its publisher tells us it is no longer current. We point out to our foreign visitors that, in the United States, the selection of textbooks is the responsibility of State and local authorities and that the Laboratory's function is only to display textbooks in wide current use.

In selecting and retaining trade books, the Laboratory follows a different pattern. Realizing that one of the functions of a school library is to support the curriculum, we recognize the fact that not all the trade books published (2,584 in 1962) are related to the school program. In deciding which of these books to keep, we follow the historic pattern of the Office of Education in gathering and disseminating information: we collect reviews of the books we receive as they appear in standard journals and, on the basis of reviews, add some of these books to our permanent collection. All trade books are kept for a year, regardless of good or bad reviews, before we decide whether to keep or to discard. Reviewers, of course, sometimes disagree. Because the Laboratory is a research collection, we keep some controversial books on our shelves. But we usually do not list a book in our bibliographies which has received decidedly unfavorable reviews. Our function is to alert teachers and librarians to the availability of new books. They must make the choice, based on the needs of their school and library.

The Laboratory has a small but growing collection of books used in other countries. Some of these come to us from Office specialists who acquire them in the course of official travel and study. Others are brought to us by visitors from overseas who give them to us as example of their own instructional programs. Still others are books developed by the technical assistance programs sponsored by the United States in developing countries; as such, they are significant representatives of our Government's efforts to have materials developed specifically for the cultures they are to serve.

Users of the Laboratory

Although the Laboratory began as a service to foreign educators and is still a unique medium for such service, the proportion of visitors from the United States and other countries has shifted over the years. In 1958—halfway in the Laboratory's history—twice as many foreign visitors as domestic came to the Laboratory. But current figures show a marked change: although both kinds of visitors are increasing extensively, educators from our own country outnumber their counterparts from abroad.

The change has come about, we think, partly because concepts of educational materials are changing in the United States and partly because more and more educators in this country are learning about the existence of the Laboratory and the services it offers. The very existence of a collection of teaching materials as large as the Laboratory's calls attention to it; as educators use our resources to advantage they publicize our program.

This April, for example, we had 267 visitors. Among them were an official of the department of cultural exchange of Iraq; the head of the new Children's Book Section in the Library of Congress; a representative of Dulwich College, London; representatives of several major publishing houses; the director of publications for the U.S. Committee for the United Nations; a school official from New Zealand; an education officer from Basutoland; and a group of graduate students of library science.

In the same month we received more than 500 written requests from U.S. teachers and librarians for publications and assistance.

The Laboratory also serves specialists in the Office of Education, particularly those in comparative and international education. It also provides bibliographic services for teachers and other educators recruited for overseas assignments.

Spring is a relatively quiet time for the Laboratory staff, but in August and September the Laboratory is anything but quiet. In these months we are host to the hundreds of participants in the educational exchange and training programs administered by the Office of Education. It is an exciting and rewarding time for the staff. We show new books to exchange teachers from Great Britain, teacher development grantees from Laos, technical assistant program participants from Turkey, to name but a few of the types of visitors we have. We expect more than 2,200 visitors from 77 countries on these programs this fall.

Recent visitors to the Educational Materials Laboratory include Ibrahim Hafez, director of the Documentation and Research Centre for Education in Cairo, Egypt. Here, Dr. Hafez sits in on a committee meeting of Washington, D.C., educators in the Laboratory. Left to right are Olive De Bruler, supervising director of school libraries; Eula Mials, librarian, Amidon Elementary School; Dorothy Johnson, principal, Amidon Elementary School; and Dr. Hafez. Mrs. Watt, Chief of the Laboratory, is standing.

A visit to the Office of Education's Educational Materials Laboratory was one of the activities of the first group of African women educators to come to the United States under a program sponsored by the Agency for International Development.

Our American visitors include curriculum supervisors, school principals, teachers, and instructors and students in teacher-training programs. Most of them are from Washington, D.C., and nearby States.

Publications

The Laboratory staff prepares, 8 or 10 times a year at irregular intervals, reports on the Laboratory's services and holdings, which are issued under the general title of

Educational Materials Laboratory Report. These publications are either bibliographies of new holdings or bulletins describing new or expanded services.

Bibliographies are on such subjects as materials (textbooks, trade books, and teachers' resources) for teaching about a specific region of the world, periodicals related to programs for international understanding, publications on the United Nations, reference tools, and books about the profession of education. Bibliographies are not cumulative; each takes up where the previous one on the same subject left off. The preparation and release of an issue depends on the type of questions and the quantity and kinds of materials the Laboratory receives.

Service issues of *Report* are best represented by recent issues describing the textbook classification scheme and its adaptations used by the Laboratory. (The Laboratory has developed its own classification scheme because so large a collection of textbooks calls for a more functional scheme than those provided by the Dewey Decimal Classification and the Library of Congress Classification). These issues have been prepared in answer to requests to the Laboratory for advice about the organization and maintenance of materials centers and because our scheme—which arranges textbooks by curriculum relationships because teachers have asked for such an arrangement—seems applicable to other centers. As the Laboratory develops new numbers for classing new types of textbooks, it will issue supplements.

There is no charge for *Report.* We send single copies to schools, materials centers, and libraries on a mailing list we maintain, and supply large quantities on request for the use of such groups and organizations as conferences of social studies teachers and library schools. The name of a school or center can be added to the list by writing to the Educational Materials Laboratory, U.S. Office of Education, Washington 25, D.C.

Educational Materials Laboratory Reports

Single copies of the reports listed below are available from the Publications Inquiry Unit, Office of Education, Washington 25, D.C. Please include OE number in requests.

Latin America, OE–14031–10.
English as a Foreign Language OE–14031–11.
Professional Literature—Education, OE–14031–12.
Africa South of the Sahara, OE–14031–13.
Facts and Figures, OE–14031–15.
Reference Tools, OE–14031–16.
Periodicals Relating to International Understanding, OE–14031–17.
Education—Literature of the Profession, OE–14031–18.
The United Nations, OE–14031–19.
Seasons and Holidays, OE–14031–20.
A Classification Scheme for Elementary and Secondary School Textbooks in Educational Materials Centers, OE–14031–21.
Classing Curriculum Guides and Related Publications, OE–14031–22.
Western Europe, OE–14031–23.
Periodicals Related to International Understanding, OE–14031–24.

Joseph M. Troxell, director of the Inter-American Schools Service of the American Council on Education, discusses with Mrs. Watt an exhibit in the Laboratory of art created by pupils in the American-sponsored binational schools in Latin America.

The next 10 years

Though the temptation to predict is strong, we resist it. We hope, however, that as teachers here and abroad need new services, we will be able to develop ways of providing them.

The Laboratory is a rich resource for educational research, made significant by the publishers who contribute new books to it and the educators who use it. We emphasize the idea that the Laboratory is a working collection by using the term "laboratory" in its title.

Answering requests and providing visitors and correspondents with assistance gives the members of the Laboratory's staff their pleasantest experiences—the feeling that the Laboratory is a part of a worldwide effort to document, to study, to compare, and by these means to improve the materials that are put into the hands of children in schools everywhere.

Fidelity and crime insurance for schools

R. N. FINCHUM

FIDELITY AND CRIME insurance for school funds and property protects both the public's property and the reputation of designated officials. School districts can, and many do, obtain security of funds and property through insurance policies which offer maximum sound protection for negotiable and nonnegotiable property.

Fidelity bonds

The laws of most States require that a fiscal officer of a school district be covered by a fidelity bond that names him as principal and the board of education as beneficiary. In most States other board employees handling or having access to money are covered by bond at the board's option.

Of the many types of fidelity bonds offered by insurance underwriters, school districts usually use one or more of these four to cover employees:

The *individual fidelity bond* covers a named employee for a specified amount.

The *name schedule bond* covers any specified employee or employees named on the bond, to an amount shown opposite each name.

The *position schedule bond* covers specified positions rather than individual employees. Positions are identified and enumerated in the bond.

The *blanket bond*—either the *blanket position* or the *primary commercial blanket*—covers loss from employee fraud. The *blanket position bond* can be written for a minimum coverage of $2,500 and in multiples of this amount to a maximum of $100,000. The *primary commercial blanket bond* is limited to an amount specified in the bond, beginning at $10,000. It has no ceiling. Both types classify employees into three categories: Employees who actually handle money, negotiable securities, or salable merchandise (class A); employees who do not handle money or securities directly, but who have access to them (class B); and all other employees (class C).

Crime insurance

Fidelity bonds, regardless of type, only protect the school district against financial loss from the fraudulent acts of employees covered by the bond. To obtain coverage for losses from burglary, robbery, and theft or larceny, the school district must obtain special insurance for full protection of money, securities, and tradable merchandise in any office or building or in transit from office to bank or from building to building at any given time.

Insurance companies offer burglary insurance in either of two policy forms—*open stock* or *safe*. *Open stock* burglary insurance covers the loss of furniture, fixtures, and equipment feloniously taken by force of which there must be visible evidence at the place of entry when a building is closed. *Safe burglary* insurance covers the loss of money and securities under similar circumstances. *Robbery insurance* covers the loss of money, securities, or other tangible possessions taken from the insured or from one of his employees by violence, force, or threat of violence, or by other unlawful means on the school grounds or somewhere else.

Insurance policies against theft or larceny (usually no distinction is made between the terms)—the stealing or taking of money, securities, or property—do not stipulate forcible entry, violence, or threat of violence as necessary for the coverage to be effective.

Through a new policy recently developed by insurance underwriters, school districts can eliminate the unsound practice of having one or more policies with each of several companies. With one all-embracing policy the school official will no longer be in doubt as to what coverage he and the school district have and underwriters cannot find loopholes for disclaiming liability.

The 3–D Policy

All companies now offer a standard policy form, known as the 3–D policy (dishonesty, disappearance, and destruction), which provides complete insurance protection in a single policy against losses from dishonesty. The 3–D policy offers any one or all of five coverages, at the option of the insured, and coverage for other exposures to crime can be added by endorsement. The five standard coverages are employee dishonesty, loss inside the premises,

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loss outside the premises, losses through money orders and counterfeit paper currency, and depositor forgery.

Employee dishonesty coverage can be obtained in either form A—commercial blanket bond, with a minimum coverage of $10,000 and no maximum limit—or form B—blanket position bond, with a minimum of $2,500 and in multiples of this to a maximum of $100,000 coverage. Both forms cover loss of money, securities, and property through any fraudulent or dishonest act or acts by any of the school's employees, acting alone or in collusion. The policy stipulates the amount of insurance on each employee.

The *loss inside the premises clause* covers the loss of money and securities by destruction, disappearance, or wrongful abstraction within the premises or within any banking premises or similar place of safe deposit. In addition, it covers the loss of other property by safe burglary or robbery within the premises; or from a locked cash drawer, cashbox, or cash register by felonious entry into such a container from within the premises or attempts to carry off such a container. It also covers damage to premises by safe burglary, robbery, or felonious abstraction or by burglarious entry into the premises or attempt to enter, provided the insured is the owner of the premises or is liable for such damage.

The *loss outside the premises clause* covers the loss of money and securities located outside the premises, if lost through destruction, disappearance, or wrongful abstraction while being conveyed by a messenger or armored motor vehicle, or while within the living quarters in the home of the messenger. It covers other property against robbery or theft losses, if the property is within the living quarters in the home of any messenger. (Policies define a messenger as the custodian of money, securities, or other valuable property.)

The *money order and counterfeit paper currency clause* is not usually needed by schools or school districts.

The *depositor's forgery clause* covers any loss from forgery or alteration of outgoing negotiable instruments, whether signatures are by hand or by machine. It protects, as their interests may appear, the insured and any bank included in the insured's proof of loss in which the insured carries a checking account.

The endorsement that the insured most frequently need is the *mercantile open stock with theft coverage.* This endorsement protects the insured against loss of merchandise, furniture, fixtures, and equipment by burglary and theft, or by robbery of a watchman when the premises are not open for business, or damage done to the premises by burglary or by robbery of a watchman. The "theft" clause extends the protection to a 24-hour coverage, but stipulates a $50 deductible to eliminate nuisance claims, and it limits the carrier's liability in case of loss by theft to the amount stated in the schedule for burglary, not in addition to it. The insured can collect in case of loss by robbery or theft or larcency only if he makes a physical inventory of insured merchandise at least once each year and keeps a record of the inventory. The endorsement, however, does not cover the mere disappearance of any insured property, or shortage disclosed by any inventory, unless the insured can reasonably prove that the loss or shortage resulted from robbery, theft, or larceny.

Except for fidelity blanket position coverage, which has a minimum of $2,500 and a maximum of $100,000, and the primary commercial coverage, which has a minimum of $10,000 and no maximum liability, all other coverages of the 3–D policy have no specified minimums, and the maximum of company liability can be set by the insured at whatever amount he needs.

Premiums for the 3–D policy can be paid annually, 3 years in advance, or, in most jurisdictions, on an installment basis. Regardless of premium period, however, coverage is continuous until the policy is canceled, since the policy sets no expiration date. If the policy is canceled, it remains effective for 2 years, as regards employee dishonesty, and for 1 year, as regards criminal acts of others, to allow ample time for the insured to discover any loss.

The chief advantages of combining all fidelity and crime coverage in one contract, such as the 3–D policy, instead of separate coverages by different companies, are these: (1) There can be no quibbling among carriers as to which company is liable in case of loss; (2) payment of premiums on overlapping insurance is eliminated, preventing waste of school funds; (3) school officials have a better opportunity to analyze and understand the exact coverage they buy; (4) less recordkeeping is necessary; (5) premimum payment procedures are simplified since only one company holds the policy.

THE CARE and safekeeping of public school funds is a problem of first magnitude in school administration. Every year billions of dollars in such funds pass through the hands of public officials. This year the regular funds—funds for capital outlay, current expenditures, and debt service—will amount to more than $16 billion; to this figure must be added hundreds of millions of dollars in school activities funds. And every year the totals grow larger. In view of all that is at stake, it is only natural that school officials and administrators are seeking the most economical and effective means that can be devised for protecting against dishonesty the public investment in education.

LILLIAN L. GORE

What is a good nursery school?

MOST children 3 and 4 years of age and some children 2 years of age need experiences that even the most privileged homes cannot give them. Their bodies, their intellectual abilities, and their emotions are developing rapidly. In these important formative years they need opportunities to develop concepts about their world and to share in activities with children of about the same age. The good nursery school, through qualified teachers, proper equipment and materials, and an environment planned around the needs of the rapidly growing young child,[1] supplements and extends the experiences offered the child in his home. Its program provides for appropriate continuity of learning and development.

The good nursery school also offers educational experiences to the parents of small children. Through observing the behavior of their young children in a group, consultation with teachers and directors, discussions with other parents, and participation in the school's program, parents learn to understand young children and acquire a knowledge of the principles of child guidance that carries over into the home. Thus the good nursery school helps parents to fulfill their jobs as parents with more confidence and satisfaction.

The nursery school is a recent development in U.S. education, dating back only to about 1920. The early nursery schools in this country were established mainly as laboratories for child study, teacher education, home economics, and parent education by colleges and universities. Recent developments in education, pediatrics, biology, mental hygiene, and psychology, and the changes in American life—the growing number of working mothers, for one—are increasing public interest in the health, growth, and development of the nursery-age child.

Nursery schools are sponsored by public school systems, colleges and universities, groups of parents, church groups, community agencies or organizations, and private persons and organizations. They may be financed by public or private funds, or by both. Dean, in 1959, found that 4.5 percent of the U.S. cities with populations of 2,500 or more were operating nursery schools under the public school system with the support of public funds, public funds and private fees, or private fees only.[2] There is evidence that the number of privately sponsored nursery schools is increasing, particularly the number of cooperative schools operated by groups of parents who employ a trained teacher for professional leadership. No national enrollment figures are available. Some State departments of education, however, maintain an acounting for their own States.

There are, in addition, both public and private nursery schools for exceptional children—for children who are blind, deaf, crippled, or who have impaired speech or other serious disabilities. Hospitals, clinics, and other institutions operate private schools for handicapped children, sometimes in conjunction with public schools or as part of their own research programs. There is a growing body of research on the value of these schools.[3]

Some States and local school systems maintain standards for housing, space, equipment, safety, health conditions, teacher qualifications, and curriculum. Thirteen of the States require certification of nursery-school and kindergarten teachers. Many independent and church-related schools require their teachers to meet these standards. "Today 32 States provide supervision for either nursery schools or kindergartens or both, and work not only with the public schools but with private schools as well, providing leadership in community efforts to make early childhood education a highly productive part of the whole educational process." [4]

[1] Katherin H. Read, *The Nursery School*, pp. 3, 24. Philadelphia, W. B. Saunders Co., 1961.

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[2] Stuart E. Dean, *Elementary School Administration and Organization*. Washington, U.S. Department of Health, Education, and Welfare, Office of Education, 1961. p. 19.

[3] Dybwod Gunnar *and* Edward LaCrosse, "Early Childhood Education Is Essential to Handicapped Children." *Journal of Nursery Education*, January 1963. pp. 127–132.

[4] Hazel M. Gabbard, "A Nation's Concern for Kindergartens," *School Life*, May 1959. p. 10.

Objectives of nursery education

The principal objectives of nursery education are to—

Provide educational experiences for the child according to his developmental needs and interests.

Supplement the home environment with indoor and outdoor play equipment and materials suitable for young children.

Foster the development of the child by providing opportunities for him to live and learn with other children of about the same age and encourage him to take part in group activities.

Help parents to better understand their child and the significance of his school experiences.

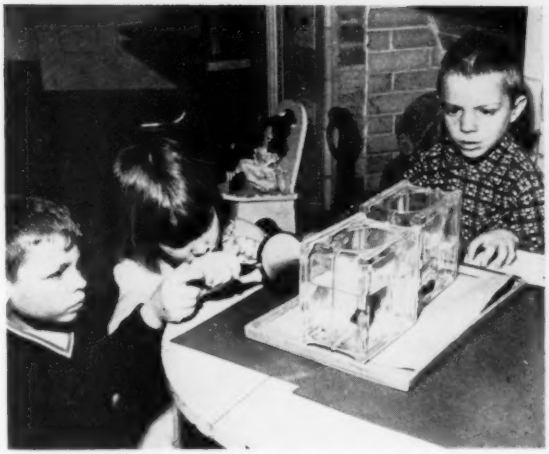
As an essential safeguard to the quality of the program, the good nursery school takes no more than 15 to 18 children in a group, fewer if the group contains 2-year-olds. It employs two teachers or a teacher and a trained assistant for each group. Two adults are necessary because small children require much individual guidance. Having a second teacher also permits indoor and outdoor activities at the same time. It is essential to have enough teachers to guide group living and to provide for individual needs simultaneously.

The curriculum of the nursery school though flexible is well planned. It is based primarily on the interests of the children and on their firsthand experiences. Through these experiences in their varied activities, they learn to—

- Use and manage their bodies with more skill and a growing sense of achievement and confidence, and develop healthful habits of play, rest, elimination, and eating.
- Extend their interests and understanding of the world about them by investigating and experimenting, and by thinking about some relationships they discover in their environment.
- Work and play productively with other children, acquire some independence, and communicate their feelings to other children and adults.
- Express themselves creatively and spontaneously through art (building, modeling, painting); music (rhythms, singing); language (conversation, storytelling, rhymes, and dramatic play).
- Enjoy browsing, listening, observing, exploring, making plans, discussing experiences, accomplishing tasks important to them.

The daily program

The daily program of the nursery school has no set time schedule. Each child can choose his own activities from the opportunities offered by the school. Large blocks of activities occur regularly enough to give the child a sense of direction and confidence in what he can expect. There are regular times for indoor and outdoor play,



In many ways the good nursery school introduces the child to science. Here, three youngsters learn something about fish from observing school pets.

toileting, washing, resting, eating, group discussions, stories, music, health inspection, and arrival and departure. Activities are balanced between the active and the restful.

Though programs vary, a typical 3-hour day at a nursery school is likely to follow a large block plan somewhat similar to this one:

Arrival and health inspection.—One of the teachers greets each child cordially when he arrives and helps him, when he needs help, to find his locker and remove his outer clothing. She or the school nurse observes him for signs of illness.

Play period.—Children, individually or in small groups, choose activities in outdoor or indoor play areas depending on the weather. These activities may include—

Using hollow blocks to build a house, boat, or airport.

Experimenting with sounds and rhythms through the use of simple musical instruments or other materials; listening to recordings, or moving in rhythm.

Playing in the housekeeping, market, or other centers in dramatic play.

Looking at picture books in the book corner or examining specimens in a science or nature area.

Stroking or caring for pets; observing animals and plants.

Painting at an easel or using fingerpaint, clay, chalk, or other creative media.

Climbing on ladders, playing on the jungle gym, or walking on boards, boxes, or tree trunks.

Digging in sand and playing in water.

Making gardens.

Going in a small group with one of the teachers on short trips to a farm or shop.

Toileting and hand washing.—Each child goes to the toilet, washes his hands, and gets a drink of water when he needs to. The teacher gives him whatever help and assurance he needs in using the facilities.

Midmorning snack.—The midmorning snack furnishes a change of tempo and an opportunity for further conversation and self-service. Before it begins, the teacher may remind the children, a few at a time, to put away their work, to wash their hands, and to sit at small tables. When all the children are ready, they are served a light meal of milk or fruit juice and cookies, crackers, fruit, or a raw vegetable. A midmorning meal is included in the nursery school curriculum partly for the social and intellectual values in the experience.

Relaxation period.—After the snack, some or all of the children may rest on cots or rugs; occasionally the teacher has them spend a quiet time with stories or music.

Continued activities.—After the relaxation period, the children take up old or new activities, such as dramatic play indoors or outdoors or rhythmic activities. Some may go for a short walk with a teacher, listen to a story, discuss interests or problems with the teacher, work with puzzles, or look at books. Activities continue until time to go home, always with appropriate teacher participation and guidance.

Departure.—The teacher gives each child a friendly goodby and occasionally shares some incident of interest with the mother who has called for the child.

When children attend the school for longer than the usual 3 hours, the school serves a warm, attractive, and nutritious lunch. Activities during a longer day also alternate between active and restful. Part of the afternoon is set aside for each child to have complete rest on a cot in a darkened room.

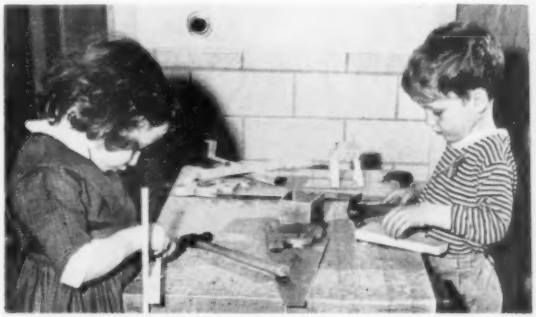
Throughout the day the teacher works with understanding and skill in providing depth to the learning, setting limits, and giving needed support to each child in his different activities.

Characteristics of a good nursery school

A good nursery school provides the young child with a good environment in which to use materials and equipment suitable to his age and needs, under the direction of a skilled teacher. It includes the participation of both parents in the program.

Environment.—The good nursery school has adequate space both inside and outside—40 or more square feet inside for each child, 75 to 100 or more square feet outside. The building is a one-story, fireproof structure opening on the outside play area at or near ground level. The inside is attractive, clean, and functional. Equipment, furniture, and plumbing fixtures are scaled to the child. Toilets, wash basins, and drinking fountains are sanitary and readily accessible. There are enough of them to accommodate every child.

Material and equipment.—The school's materials and equipment give the child the means for active and quiet play, indoors and out, for creative work and enjoyment, for exploring and discovering, and relaxation. These activities provide the basic content of the program for the young child.



The good nursery school provides children with the means of expressing themselves creatively, as this boy and girl are doing with tools and wood at a workbench.

For active play the school has ladders, slides, towers, large building blocks, boards, rocking horses, swings, packing boxes, wheel toys, workbenches, soft wood, woodworking tools, balls, and garden tools.

For quiet play it has puzzles, crayons and paper, nests of boxes, colored beads, paste and blunt scissors, mats and cushions, sand, water, soft toys, picture books, slides, and films.

For creative play and sensory experiences—both active and quiet—it has easels, blocks of different sizes and shapes, simple musical instruments (such as tamborines, drums, tonal bars, and song bells), paints, crayons, brushes, large paper, clay, dough, water and sand toys, housekeeping and "shop" equipment, farm and zoo animals, cooking utensils, and materials for experimentation in science.

The school also keeps small and gentle animals so that children, by observing and caring for them, may learn about their habits and characteristics and to appreciate living things. It also provides many opportunities to observe plants and to grow them in a garden or room.

The teacher.—The teacher is the keystone of a good nursery school. She knows what her function is and how to carry it out. She is well prepared, as a teacher and as a person, to work effectively with young children and with adults.

Her preparation includes training in child development, parent education, and health and nutrition. She received her degree in early childhood education from an accredited college or university. She has a broad background in science, music, art, social sciences, and children's literature. She understands the nature of a suitable environment for young children, chooses materials and equipment according to the needs of each child, and

Criteria for a good nursery school

A nursery school is probably a good one if it meets these specifications:

Equipment

Its equipment and materials are safe, durable, in good condition, and conducive to exploratory and creative play.

It has enough equipment for each child to pursue wholesome activities.

It has 40 or more square feet of space indoors for each child; 100 or more square feet outside for each child.

The outside play area has both sunny and shady areas; soft areas for digging and gardening, grassy parts for playing, and hard surface for tricycles and bouncing balls. It is free of sharp rocks, deep holes, and other hazards to a small child.

It meets all local regulations for fire, safety, health, and civil defense.

The premises are sanitary and clean.

Program

Children can play alone and in small groups.

Active and quiet periods alternate.

The child has a choice of activities suitable to his development and interest.

The school encourages the child to help himself in dressing, washing, eating, working, toileting, and cleaning up, but gives him support and assistance as he needs them in mastering these tasks.

It provides for sensory experiences in his environment as the basis for learning.

It uses the resources of the community in the program.

It offers opportunities for experiences in art, music, science, play and physical activity, social living, and language development.

It permits the child to develop at his own rate in exploring, experimenting, conversing, thinking, and solving problems.

Children in a good nursery school are enthusiastic, active, and happy. They are learning.

It promotes and protects the child's health.

It invites and encourages parents to visit and to take part in its program.

The staff

The school has a nurse on its staff and a doctor on call. The teacher is qualified to give first aid.

It has 2 teachers or 1 teacher and a trained assistant for no more than 15 to 18 children.

Its teacher is professionally prepared in early childhood education at an accredited institution.

She likes and respects children, is friendly, enthusiastic, and patient.

She recognizes differences in children and is observant of each child's development and needs.

She uses help from parents in working for the best interests of each child.

She respects parents and works with them skillfully.

arranges them in ways to stimulate desirable activities and interests. She thus provides the child with the environment and guidance necessary to further his development and learning.

She is a well-adjusted person. She is warm, friendly, sincere, and happy. She has keen insight. She enjoys working with young children and respects them and their parents as human beings. She is sensitive to the significance, for learning and growth, of what young children do and say. She understands how each child behaves, develops, and learns. She recognizes the effect her words and motions—the way she moves toward the children, her facial expressions and gestures, and the tone of her voice in speaking to them in asking a question, offering a suggestion, and giving a direction—may have on children and she regulates them accordingly.

Both her preparation and temperament give her skill in working with parents and in maintaining good relations with other members of the school's staff.

Records.—Because records are important in guidance, the good nursery school keeps selected data on each child. Such records contain pertinent, cumulative, and objective information about the child. They help the teacher to better understand him, and they enable her to work with him and his parents more skillfully and to make both immediate and long-range plans for his curriculum.

Good records contain information on the child's home and family background; developmental history—health, weight, height, and growth; social development and behavior; skills; dislikes and interests. The teacher obtains information for the records from notes she has made in her diary based on her observations of the child in various situations in the nursery school, accounts of the day's activities, and from information from professional associates—such as the physician, nurse, psychologist, and social worker.

The cost of operation

The cost of operating good schools for young children varies with the location. Certain aspects of a good nursery program, however, make it somewhat costly: The small number of children in proportion to trained teachers, the indoor and outdoor space required, the ex-

tensive equipment, and the special services. The cost of operation is probably a major reason why there are so few public nursery schools, as well as so few excellent nonpublic ones.

In planning a budget for a nursery school, the school system, group, or the private operator must allow for such items as rent or purchase price of the physical plant, taxes, yearly maintenance and replacement costs, adequate custodial and food service, laundry and maintenance, teaching and office supplies, liability and property insurance, utilities, health and other consultive services, and salaries for teachers and assistants. Teachers salaries are based on those of teachers with comparable qualifications in elementary and secondary schools in the locality.

The importance of quality

The importance of quality in the nursery school cannot be overemphasized. The child is undergoing a most important phase of his growth. Research shows that if the experiences he has in nursery school are vital, they can contribute greatly to his wholesome development and patterns of learning and living. Based on his research in the learning of young children, Jensen, in discussing learning of the nursery age child, says that the child's "learning experiences during this crucial period of mental development will determine in no small measure how far he will go in school and how far he will go in life." [5]

To be of value to the child, everything the school offers him must foster his fullest development—teacher guidance, environment, equipment, program, and parent-school relations. It must safeguard his right to a rich childhood. It is probably true to say that *no* school is better than a poor school for the young child.

A GOOD NURSERY SCHOOL is based primarily on what is known about how children learn and develop and the values held in our culture for them. It uses this knowledge in enabling children to learn about their world firsthand, to play—which is work for the young child—creatively and constructively, to wonder, question, imagine; to express their feelings and emotions; to build a foundation for sound relations, future skills, concepts, and creative work. Such development is fundamental. This is quality education for young children.

[5] Arthur H. Jensen, "Learning in Preschool Years," *The Journal of Nursery Education*, January 1963. p. 138.

References

Chittenden, Gertrude, Margaret Nesbitt Murphy, *and* Betsy Williams, *Essentials of Nursery Education*, Chicago, National Association for Nursery Education, 1957 (reprint), 32 pp.

Christianson, Helen M., Mary M. Roberts, *and* Blanche A. Ludlum, *The Nursery School: Adventures in Living and Learning*, Boston, Houghton Mifflin Co., 1961, 302 pp.

Gabbard, Hazel M., "A Nation's Concern for Kindergartens," *School Life*, May 1959, pp. 10–13.

Gunnar, Dybwod, *and* Edward LaCrosse, "Early Childhood Education Is Essential to Handicapped Children," *Journal of Nursery Education, January* 1963, pp. 127–132.

Imhoff, Myrtle M., *Early Elementary Education*, New York, Appleton-Century-Crofts, Inc., 1959, 371 pp.

Jensen, Arthur H., "Learning in Preschool Years," *Journal of Nursery Education*, Chicago, National Association for Nursery Education, January 1963, pp. 133–139.

Leavitt, Jerome, *ed., Nursery-Kindergarten Education*, New York, McGraw-Hill Co., Inc., 1958, 365 pp.

National Education Association, Department of Elementary-Kindergarten-Nursery Education, "What Is Nursery Education?" Washington, D.C., the Association, leaflet, undated.

Moustakas, Clark E., *and* Minnie Perrin Berson, *The Young Child in School*, New York, Whiteside, Inc., and William Morrow & Co., 1956, 256 pp.

Read, Katherine H., *The Nursery School: A Laboratory in Human Relations*, 3d ed., Philadelphia, W. B. Saunders Co., 1961, 333 pp.

Wann, Kenneth D., Miriam Selchen Dorn, *and* Elizabeth Ann Liddle, *Fostering Intellectual Development in Young Children*, New York, Bureau of Publications, Teachers College, Columbia University, 1962, 140 pp.

GROUPING

(*Continued from p. 12*)

GIVEN this information about behavior and behavior change, we can say that the task of education is to provide a person with opportunity to acquire a breadth of experience that will be personally meaningful and readily available to him when he needs it. In addition, education must enable a person to remain open to experience and to seek new experience, and thus continue to learn to behave more intelligently.

Obviously this goal cannot be attained through teaching which emphasizes only a textbook approach to mastery of subject matter. Few teachers would disagree with this, but it seems necessary to say it here in the light of the criticism being leveled at education and the reaction of many educators to the criticism. Such criticism has led to what are called strengthened curricular requirements, to requirements of mastery in a great number of subject fields, and to greater concentration on formal subject matter in the elementary school. But can we effectively educate boys and girls through these emphases alone, even though we group them homogeneously, heterogeneously, or for individualized instruction? How we organize will be of little consequence as long as our goals and emphases remain unchanged.

It is because of this, I believe, that research on methods of grouping has been so unproductive. I have concluded that administrative or teaching devices do not make a significant difference in children's learning. What does make a difference is the personality of the teacher or administrator as it interacts with the personality of the pupil. Recent studies support my statement.

Several years ago we began to ask teachers to describe their most pressing problems. We have used their descriptions in forming an instrument for measuring the "openness or closedness" of a teacher. In one of our first studies with this instrument we compared the ratings of teachers' success made by their principals and superintendents with the rating of their openness we had obtained from our measure. A significant relationship was revealed: the more open a teacher the more likely he was to be successful.

In another study we selected pairs of teachers of grades 3 through 6; in each pair one was more open to experience than the other. We then tested the attitudes of their pupils toward self and others. This study showed that the more open the teacher, the more positive were their pupils' attitudes. In other words, there was a direct relation between the personality of the teacher and the personalities of the pupils.

In another study Frank Emmerling looked for answers to the questions, "Do open teachers have a different quality of relationship with their pupils?" and "Do open teachers have a different approach to teaching?" To answer the first question he selected teachers who varied in degrees of openness and asked their students to describe the empathy, positiveness of regard, unconditionality of regard, and congruence of their teachers. (These four factors have been shown to be both necessary and sufficient for promoting openness in another person.)

Emmerling also asked the pupils to describe the center of decisionmaking in their classrooms. The conclusions of this study were simple but important: The more open the teacher, the more he provided classroom conditions in which pupils could grow toward openness; the less open the teacher, the less he provided such conditions. In the classroom of the more open teacher, decisions were made by pupils and teacher; in the classroom of the less open teacher, decisions were made by teacher or pupils, but not by both.

Openness in a student is important not only for his personal welfare but also for his ability to learn. A study by Harry Engle of graduate students in a summer workshop showed that the more open the student, the more he learned. [The Emmerling and Engle studies are reported in doctoral dissertations, Auburn Univ., Auburn, Ala.—*Ed.*]

These studies support the conclusion that a most important aspect of teaching is the interaction of the personality of the teacher and the personality of the student. Anything which makes it more difficult for the teacher to recognize the individuality of the student or for the student to receive the teacher as a person acts to reduce the effectiveness of teaching.

Homogeneous grouping may act in exactly this way. Studies have shown that homogeneous grouping seldom reduces the variability of a group by more than 20 percent. But a teacher assigned a homogeneous group may assume that the pupils are alike in motivation, learning ability, interest, etc., and ignore individual variability.

THIS ALL adds up, to me, to say that to be effective we must start our teaching where the child is. We must start with the experience he has; we must start with the things that matter most to him. But this is not enough; we must work with and continue the process of individualization, and we cannot start where the child is and then attempt to direct him toward what is meaningful only to us. We must prompt him to ask questions such as, "Where am I?" "What is important to me?" "What should and might I be concerned with?" and, "Where should I go?"

To be effective, education must start where the learner is and proceed in directions which are meaningful to him and which seem to him to hold at least some promise for his future. He must set the pace, but the teacher can help him judge the effectiveness of his rate and his direction.

This means that we must individualize not only the instruction but the directions for work. Only where it is determined that children are going toward the same goals should they be grouped and even within such grouping the individual must be able to maintain his own individuality. We may rightly require children to work on something meaningful to them, to do a conscientious job, and to evaluate their efforts.

In this period of increasing diversity we must help children learn to move in many directions, to learn new methods of attacking problems and of thinking, to be responsible learners, to enjoy being different and energetically pursuing self-selected goals, and to remain open to their experience. And in this the most important factor is the personality of the teacher.

I believe that older systems of education have been amazingly effective, but I also believe that they will not be enough for the world into which we are moving. And the expense of the old methods in terms of human welfare and well being is too great to continue. True individualization of instruction seems to me to be our only alternative at this point and this cannot be obtained by any administrative arrangement. It requires interaction between individual pupils and teacher.

AD Minutes Briefly noted--- for the busy School Administrator

Material for this department is prepared by the staff of the School Administration Branch, Division of State and Local School Systems

The Adult Education Division, San Francisco Unified School District, is presenting a 6-week course for parents called "Interpreting for Parents the Modern Approach to Mathematics." The tuition-free evening course is being sponsored by local units of the PTA as a means of bringing parents up to date on the changes being made in curriculum and instruction.

The National Catholic Educational Association (NCEA) is recommending that all parochial schools use its recently published manual *Accounting Manual for Catholic Elementary and Secondary Schools* in collecting and recording statistics. In preparing the manual, NCEA used Office of Education Handbook II, Records and Reports Series: *Financial Accounting for Local and State School Systems,* as a guide. Allan R. Lichtenberger, head of the Standard Terminology and Definitions Unit, State School Systems, in the Office of Education, served on the advisory committee for the NCEA manual.

The final appropriation for education, $396 million, by the Washington State Legislature is $5 million less than requested for maintaining existing programs for 1963–65. This means, the State superintendent of public instruction says, that school districts will receive each year $5 less for each pupil or $100 less for each teacher than last year. The effect of the final appropriation measure, according to the Washington State School Directors' Newsletter, "is in line with the legislature's expressed intent" that school districts should depend upon the taxpayers in their own districts to supply much more support than they have supplied in the past.

The *Handbook of Policies and Procedures of the Board of Education,*** Albuquerque, N. Mex., contains a comprehensive statement on school-community relations. It sets forth policy on open board meetings, the superintendent's annual report, the monthly school journal distributed to the public, budget hearings, school visiting by parents, use of community resources, participation in community life by school personnel, and nonschool use of buildings and grounds.

The Andrews (Tex.) High School is designed so that no classroom is a separate unit unrelated to other activities in other classes and departments. It is an example of the "loft plan" in school construction; i.e., a large area of floor space with a minimum number of walls under one roof for greater flexibility. Wiring and heating-cooling ducts are located in space between the ceiling and the roof. The building is carpeted and air conditioned.

By buying cooperatively under the State price contract plan, 95 Kentucky school districts have made their school buses safer and at the same time saved money. Standard safety items on buses purchased this year include more effective flashing lights and nylon tires. The districts estimate that they have saved close to $300 on each 48-passenger bus.

Under the State price contract plan, the State department of education, through its division of pupil transportation, develops the specification for buses and, as a service to local school boards, determines the needs of their districts. After price contracts have been established by bids through the State department of finance, the division processes individual orders.

A far-reaching act affecting preparation programs for teachers and administrators will go into effect in California on July 1, unless the State legislature decides on a postponement to Jan. 1, 1964.

Under the statute, elementary school teachers must have 5 years of college training, a requirement already in effect for high school and junior college teachers. Superintendents will be required to have 7 rather than 6 years of training. Prospective teachers and superintendents will be prohibited from majoring or minoring in professional education. Instead, they will be required to major or minor in subjects commonly taught in public schools. A superintendent's major must be in an academic subject (natural sciences, social sciences, humanities, mathematics, and fine arts).

The legislation for this statute was sponsored by the California State Board of Education.

The North Carolina State Department of Public Instruction recently made a progress report on its teacher merit pay experiment to the general assembly. The 64-page report recommends a continuing systematic study of merit pay for teachers, including validity and reliability of the evaluation process, the number of staff members required to carry out the program, staff time required, proper assignment of responsibilities among staff members, effect on staff relationships and morale, conditions for successful operation, and strengths and weaknesses of the program, including its contribution to im-

provement of instruction. The study was authorized by the 1959 general assembly; a final report will be made in 1965. This is the first full year of operation of the experiment in the three units cooperating voluntarily in the experiment: Gastonia City, Martin County, and Rowan County schools.

The Governor of New Mexico, Edwin L. Mechem, recently appointed a new public school study commission to study the effects of the current level of school support on education programs and future support requirements, economic aspects of vocational trade schools, the new school building assistance law, and the transportation distribution program. The commission is composed of State legislators and Charles Spain, superintendent of schools, Albuquerque.

Ohio secondary schools are making plans to include in their curriculum next year a medical self-help program designed to teach pupils how to cope with emergencies created by floods, tornadoes, and other disasters. The Ohio State Department of Health reports that 331 schools have requested 725 kits and that it anticipates some 53,000 pupils will be taking the course. Each kit contains manuals, teachers' guides, tests, and filmstrips.

A leaflet for parents entitled "Science Today and Tomorrow" is the 32d in a series the Cincinnati public schools have sent to the homes of all elementary pupils. The leaflet discusses both classroom and community resources and invites parents to support the science program through encouraging their child's natural interest in the world around him and sharing in the experiences that increase his learning.

Twelve large fires in 1962 accounted for school property losses ranging from $250,000 to $716,000 each, according to information released by the National Fire Protection Association in April. Altogether, the property loss from these fires was $4,329,000. The association also reported that there were no deaths from fire last year, but that 13 persons were injured.

A recent survey made by the Division of Commercial and Distributive Education of the Board of Public Education in Philadelphia found that 73 percent of the 142 boys taking part in a Youth Conservation Corps program showed definite improvement.

The corps was established by the Department of Public Welfare in 1959 for boys, 14 to 17 years of age, with adjustment problems. Its purpose is to help these boys develop good work habits and skills. The corps sets up work projects in public parks and institutions where the boys work under the supervision and guidance of group leaders. Philadelphia schools cooperate by referring boys, dismissing them early, and enrolling them in the schoolwork program. They also provide transportation to and from work sites, physical examinations by school physicians, and employment certification. In the school year, the boys spend afternoons on the work program, working about 20 hours each week. During the summer they can work a full 40-hour week.

The legislature of the State of California has passed a bill providing $35,000 for compensatory education for certain groups of children with language, cultural, or economic handicaps. The bill provides financial assistance to school districts and county offices for the development of projects to assist such culturally handicapped pupils as those in rural or urban economically depressed areas and children of migrant farm families.

The Seattle public schools in mobilizing their efforts to deal with the problems raised by culturally deprived youngsters has created a new staff position—coordinator for the disadvantaged pupil program. The major responsibility of the coordinator will be to conduct a concentrated research study to determine new ways in which community resources can be tapped by the school in a united effort to expand the educational opportunities of the culturally deprived pupil.

New Jersey Commissioner of Education Frederick M. Raubinger recently reported that 56 New Jersey banks have issued almost 1,600 loans, amounting to $1,028,833, this academic year to students attending 361 colleges and universities in the State. Between September 15, when the program began, and April 1963, the banks had made 2,620 loans, totaling $1,629,528. The program was developed under policies of the Higher Education Assistance Authority of New Jersey.

A recent report on expenditures per pupil in the public schools of Connecticut furnishes information on total current expenses, as well as per pupil expenditures for instructional supplies and textbooks. These figures represent important facts about the level and equity of expenditures for 177 school administrative units for the 1961–62 school year. Significant amounts per pupil of ADM are these (for comparison, definitions and methods of calculating must be taken into account):

Current expenditures

Level of expenditure	Elementary	Junior high	Senior high	All schools
High	$575.74	$724.77	$894.45	$657.88
State average	366.04	513.10	534.09	418.10
Low	246.08	280.51	293.59	251.70

Instructional supplies

Level of expenditure	Elementary	Junior high	Senior high
High	$16.37	$26.37	$38.30
State average	5.86	10.51	12.14
Low	1.90	3.41	2.28

Textbooks

Level of expenditure	Elementary	Junior high	Senior high
High	$13.08	$17.74	$25.42
State average	4.14	6.39	8.25
Low	.33	2.67	3.79

STAFF OF THE ELEMENTARY SCHOOLS SECTION
OFFICE OF EDUCATION

The elementary school in the city: A conference report

About 75 persons representing 64 major cities in the United States spent March 26–29 in Washington, D.C., as participants in the Office of Education's sixth biennial conference for supervisors of elementary schools in large cities. The Office had sent invitations to all cities with a population of 100,000 or more and, to get representatives from States having no city so large, had sent invitations also to the largest city in each of those States. The following article, prepared by the staff of the Elementary Schools Section, who were hosts to the conference, is the first of two articles that will make up the conference report.

* * *

WHEN, WEEKS IN ADVANCE of our conference, we polled the would-be participants as to their choice of ideas to examine when they met, they showed an almost surprising unanimity. Expressed in large terms, many of their choices seem not new but old—as old as the elementary school itself. But in the schools where these persons work, the sound of change is loud if not always clear; and though the problems of these schools, which are essentially the problems of the teacher, are deeply rooted in the nature of man, the changes that now press on man from every side press also on the teacher and his pupils. The elementary school has always been sensitive to the changes that go on outside its walls, in the community, in all of society; and the elementary school in the metropolitan area is far from being an exception. If anything, it feels change even more than its counterpart in smaller centers; for, in the city, change seems to come faster and to press harder and more persistently, if for no other reason than that here people live closer together.

What was uppermost in our conferees' minds? Mainly, how to make room for and to foster the individual differences and gifts of their pupils. And this thought led naturally to a dozen others: How to make up for the lack of advantages many children suffer from; how to make the most efficient use of the good teacher and how to make the good one better; how to *attract* and *keep* good teachers; how to organize the school; how to use the space and special facilities most effectively; how to teach a subject well—mathematics, for example—and how much of it how soon. And always the recurring thought: How, under pressure from many quarters, to keep things in their proper perspective. As we put it here, the list oversimplifies both the problems it stands for and the points of view of our conferees: our group was a seasoned and sophisticated one, and it is not easy, in this small space, to do them justice.

Special effort for the disadvantaged child

It was only natural, since many of the supervisors came from schools in the heart of the city, that discussions of the problems attending the emphasis on individual differences turned often on the child from a deprived home or neighborhood. Every city represented at the conference has these neighborhoods, and the schools in these neighborhoods face a barrage of problems not likely to confront any other school in the Nation—at least not at any one time.

But all the cities—some more than others—are putting special resources into the solution of these problems; and as the conferees talked about their own particular efforts, they gave each other ideas. For example—

Wilmington. In Wilmington, Del., as in most urban areas, the setting in which the schools work is an intrinsic part of the problem. There is a constant outflow of families interested in schools and eager to support them, and an equally constant inflow of families who are educationally and economically deprived. Neighborhoods are changing, and the changes move into the schools with the children.

Wilmington's project on public elementary schools in changing neighborhoods began with a 3-year study that ended last June. The study was not an end in itself; it was a means of preparing the schools for the long pull ahead. It showed that the changes affecting the school come from both inside the city and outside. And it showed that the economically deprived family has no monopoly on cultural deprivation: "culturally advantaged" children were found in poor families and culturally disadvantaged were found in the well to do.

The Wilmington project is focusing attention on children whose language and ways of living differ from the language and ways of middle-income people. Teachers try to find out how these children feel about themselves, for the schools have learned that children are the way they, the children, think they are, the way they see themselves, not the way adults think they ought to be. To find out how the children feel about themselves, the schools use evalu-

ative instruments they have adapted to their purpose; that is, the project has not required any new instruments.

The schools have not added anything to their curriculum, but they have put a new emphasis into it—an emphasis on human relations and cultural experiences. This is not to say that they have forgotten academic achievement. It *is* to say that before they try to teach a child anything they think of him as an individual; they pause long enough to remember who he is, what he knows, and what his experiences and associations have been.

A few examples will show what Wilmington considers this emphasis on human relations to mean.

1. The schools had discovered that many a child in, say, the fifth grade, has the responsibility for handling the entire food budget for his family. In the mornings his mother gives him the money for the day and no other directions than that he should have supper ready when she gets home.

One young man who teaches in the fifth grade used his knowledge of this fact in the way he presented the ideas of arithmetic and social studies. Every morning he brought in copies of the day's newspapers, and he and his pupils together studied the grocery advertisements. They planned menus with one eye on the prices and the child's budget, and the other on the principles of good nutrition.

These brief budget sessions, built around a real problem of human need and human relations, turned out to be the spark which fired the discussion and sent it off to cover larger and more complicated ideas. Under the teacher's expert guidance, the children moved naturally from an interest in their own money to an interest in other economic problems. "But don't only rich people pay taxes?" they asked. "Why send all that stuff to India?"

2. One of the appalling facts to come out of the prefatory study in Wilmington is that many youngsters as small as the 4- and 5-year-olds already have a poor image of themselves. They feel that they are not worth anything and that no one else thinks they're worth much either; what they feel blocks their aspirations.

The schools are trying hard to destroy that devastating self-image. They try to seize every opportunity to show each child that he *is* important, that he deserves respect not only from himself but from others, that what happens to him matters a great deal not only to himself but to all his friends in school.

3. For many Wilmington children, white and Negro alike, informal standard English is a foreign language. "Once we frowned on their language," a teacher says; "we thought it vulgar and unattractive. But we've taught ourselves to listen to it with an open mind, and we've discovered that it's colorful and dynamic. 'That's boss!' the little girls say when they see something they think is just about perfect. And so it is; it *is* boss!" The schools no longer say, "There's a good way of saying something, and a bad way; yours is the bad and ours is the good." Instead they say, "There are many ways of saying a thing," and they're teaching the children some of the different ways and teaching them how to distinguish the appropriate from the inappropriate times for using them.

4. Because the schools have found they can't do it all alone, they are working with any group, organization, or agency that can help them. They are working with the YMCA, for example, which for many boys provides the only association they ever have with a man. Now, instead of waiting for the boys to come to them, the Y is coming to the boys. And, every so often, the schools have a "man's luncheon": with the help of the Y they are able to have one man at each table—one man to eight boys.

The YWCA is doing the same kind of thing for girls. To get closer to the communities where the girls live, it has established three preteen clubs for girls.

The schools are grateful for the help they are getting from these and other organizations: "We don't feel so lonely any more with our burden—for it *is* a burden, this responsibility we bear for children who have begun their lives with so many handicaps."

Detroit. Two fairly recent changes in school policy in Detroit have reshuffled both the city's school population and the teaching staff; both changes have been made with the good of the pupil in mind.

Under the "open-schools policy," pupils are permitted to enroll in any school in the city if the school is not crowded; if a school is crowded, the first choice goes to the children who live in the vicinity. The fluidity which this policy permits has resulted in a blending of socio-economic groups that the schools find desirable for more reasons than one. It has given children in crowded neighborhoods an opportunity to observe the standards and demands of other groups, and has given children of every group an opportunity to know and understand children from other groups.

The second change has to do with the assignment of teachers. New teachers, who are probationary, are assigned during their first year to the school "where they can get the best start" and afterward to the school "where they are most needed."

Detroit speaks of the great care it is taking in the selection of its teachers. Selection is in the hands of a special committee; and school supervisors say that the teachers they are getting seem exceptionally well prepared to deal with problems in a city classroom.

Atlanta. Part of Atlanta's efforts to provide special opportunities for children in culturally deprived neighborhoods is a 6-week summer program. The mornings are

Statistic of the Month

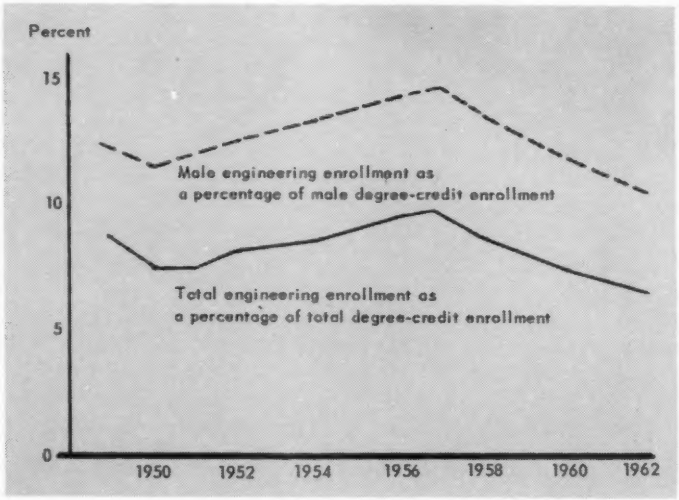
Engineering enrollments

The number of students enrolled for the first engineering degree in U.S. institutions of higher education decreased in the fall of 1962 for the fifth consecutive year. But the number enrolled for the master's degree increased for the eighth consecutive year, and the number enrolled for the doctor's degree increased for the seventh. Increases at the two highest levels caused the total number of engineering students to increase for the third consecutive year, though the total was still lower than it had been in 1957, 1958, or 1959. (For enrollments at each level for each year from 1949 through 1962, see the table.)

Engineering enrollment as a percentage of total enrollment has decreased each year since 1957. (See chart.) This relative decline in engineering enrollment has troubled some manpower specialists. For several years the number of engineering degrees conferred at all levels has been approximately 45,000, which falls far short of the 72,000 estimated by the Bureau of Labor Statistics to be needed each year of the 1960's.

The 1962 figures are from the Office of Education's most recent survey of engineering enrollments and degrees. The survey, made annually, covers those institutions listed in the Office's **Education Directory: Part 3—Higher Education** which confer degrees in engineering; in 1962 there were 247 of these institutions. The survey does not include junior college students, even though a considerable number of these students transfer to schools of engineering in their junior year.

For additional information on engineering enrollments and degrees see the Office of Education Circular No. OE–54004–62, **Advance Report on Engineering Degrees (1961–62) and Enrollments (Fall 1962).** A more comprehensive report will be released later this year.—W. Vance Grant, educational statistician, Office of Education.



Total engineering enrollment and male engineering enrollment as a percentage of enrollment in all fields in the fall of the year, 1949–62

Engineering enrollment in institutions of higher education, by level: United States and outlying parts, fall 1949 to fall 1962

Fall of—	Total engineering enrollment	Enrollment for the 1st engineering degree	Enrollment for the master's degree [1]	Enrollment for the doctor's degree [1]
1949	219,712	201,927	15,242	2,543
1950	180,262	161,592	15,869	2,801
1951	165,637	145,997	16,765	2,875
1952	176,549	156,080	17,539	2,930
1953	193,333	171,725	18,607	3,001
1954	214,414	193,692	17,441	3,281
1955	243,390	221,448	18,779	3,163
1956	277,052	251,121	22,529	3,402
1957	297,077	268,761	24,136	4,180
1958	289,680	256,779	28,138	4,763
1959	278,348	242,992	29,713	5,643
1960	271,850	234,190	31,215	6,445
1961	272,777	232,104	32,804	7,869
1962	275,329	230,730	35,359	9,240

[1] Also includes enrollment for other postgraduate predoctoral degrees.

Source: U.S. Department of Health, Education, and Welfare, Office of Education, Circular No. OE–54004–62, Advance Report on Engineering Degrees (1961–62) and Enrollments (Fall 1962).

spent in remedial work in reading and arithmetic; the afternoons, in play, other recreational activities, and in arts and crafts and music. With the help of civic organizations the schools have been able to serve lunch to all children who attend the morning sessions.

The program has not included preschool children—a limitation that also shuts out those older children who are needed at home to care for the small ones.

Baltimore. The Baltimore City Public Schools have initiated an Early School Admissions Project, which is designed to discover ways of providing opportunities for more meaningful educational experiences for culturally disadvantaged children and of making education a more significant factor in the lives of these children and their parents. The experimental project will also attempt to identify methods of mobilizing and coordinating community and school resources for working with children and parents in depressed areas of the city.

Since February 1963 two centers have been operating in depressed areas of the city. In each a group of 30 children, 4 or 5 years of age, are participating in an educational program. In one center the children attend school for 3 hours a day; in the other, 6 hours a day. Their educational program is planned and conducted by a teacher and an assistant teacher under the guidance of the project coordinator. In each center a teacher aide whose basic responsibility is clerical work helps the professional staff with other tasks that do not require professional training. Volunteer mothers, not necessarily from the school neighborhood, serve in the center on a 1-day-a-week basis.

In their work with parents members of the staff try to provide opportunities for parents to increase their understanding of the values of education and guidance. They are striving to identify the means by which parents can be encouraged to assume greater responsibility for the education of their own children.

Two more project centers will be opened in September 1963. If the experiment succeeds in raising the educational potential of children from deprived areas, the Baltimore City Public Schools will consider lowering the age requirements for school entrance.

Ways of getting good teachers. In nearly every city, the problem of finding good teachers who are willing to teach in schools in poor areas is real, and hard to solve. But a number of cities have had a fair degree of success with one means or another.

In one city, for example, the colleges are encouraging their students to do their observing and practice teaching in the disadvantaged schools; and the schools are noticing that an early experience of this kind seems to strike a sympathetic chord in the budding teacher's mind. At least, the schools are finding that a great many of these students, when they graduate, seek jobs in the schools they had been associated with as students.

Another city reports a somewhat similar experience. One of the teacher-training institutions requires its students to spend 1 day a week for 16 weeks observing a class in one of four schools in disadvantaged areas; that is, to spend 4 days in each of four schools. When it is time for these students to do their practice teaching, many ask to practice in the schools they have observed in and, when they graduate, take positions in these same schools.

Still another city is hiring student teachers as aides for part-time work, in the hope that they will choose to come back later as teachers. So far, the hope has been justified in enough instances to make the plan seem workable.

Administration and organization

The discussion on administration and organization began with the following background statement, to which all conferees apparently acceded.

> The term "administrative structure" is a broad one that needs definition before it can be used as a topic of discussion. After all, there are two types of administrative structure. One is for management purely—the kind a school needs to give it order, to keep its records, to assure safety and comfort, to make materials and space available and accessible. This kind of structure, though one might reasonably say that it exists to serve instruction, exists less for this reason than the second type does. In a way this kind of structure is an end in itself: if it performs its functions efficiently—this can be determined almost entirely by inspection—it has justified itself.
>
> The second type of administrative structure, however, is in every sense a means to an end; and its efficiency can be judged only in the effects of the instructional process on the individual pupil. This is the type of structure that delineates instructional responsibilities; its only reason for being is to improve the instructional process. This is the type which will be under consideration here—and probably in the discussion that follows.
>
> This country's ever-recurring fits of dissatisfaction with the administrative structure of the elementary school stem as much as anything from the fact that educators have generally been inclined to overlook the difference between the two types of structure and to regard them both as ends in themselves. Ever since its beginning, the elementary school in the United States has been searching for the best way of organizing itself to give instruction; and time and again, in a visionary state of mind and with lofty motives, it has made innovations. Each time, however, the innovation has bogged down, not so much because the idea behind it had any flaws as because school people eventually permitted the new structure to become—or saw it from the beginning as being—an end in itself rather than only the servant of instruction.
>
> In the processes of search and trial, however, the

elementary school has learned to be more objective about itself and more clear-eyed about its problems; and it may be that the school is ready now to make wise use of certain forms of instructional organization that seem to promise improvements over the traditional forms. Even so, there are still schools today that are adopting innovations for no better reason than to be considered in the vanguard of progress. It probably is safe to say that not even 5 percent of the schools that claim to have team teaching really have it.

In the current yearning for something new and different in the structure of the elementary school, however, there are factors other than the school's hitherto less-than-perceptive use of certain promising ideas. The dissatisfaction results partly from the increased public pressure for more emphasis on subject matter and erudition; partly from the swinging of the pendulum from one extreme to another, that is, from overemphasis on pupils of low and average ability to overemphasis on the exceptionally able; and partly from the wholly laudable desire of school and community to improve the quality of education all along the line for all children.

Nearly all types of organization that are currently being experimented with and talked about fall into one of four categories: Team teaching, the nongraded or ungraded school or unit, the grouping of pupils on some basis such as achievement, ability, or age, and individualized instruction.

The discussion that followed began with the idea of team teaching and the forms in which it is being expressed in some city schools.

Pittsburgh. For 3 years Pittsburgh has had organized team teaching in eight schools, which are at the heart of areas characterized by both cultural and economic deprivation. Children here have highly unstable lives; pupils are as likely as not to transfer from one school to another as many as seven times a year.

In each of the 8 schools, 3 teams work with the pupils in kindergarten and grades 1–3 (Pittsburgh has self-contained classrooms through grade 3) and 1 team works with all academic subjects in grades 4–6; in other words, 4 teams per school, 32 teams in all.

Teams vary in size, but none have more than seven members. In the intermediate grades the librarian and the art and physical education teachers have been added to the teams as consultants. The team leader, who is the key to the success of the team's work, is a master teacher. For his added responsibilities he is moved up one step on the salary schedules, but he carries a full teaching load. School administrators agree, however, that he should have more time for his responsibilities on the team.

In addition to the teachers, each team has a student teacher and a team mother. The student teacher is reported to take such an active part in the work and to be so deeply involved in it that any stranger attending a team meeting would have a hard time picking him out from the others. The team mother, who has been carefully selected from the neighborhood, gets a clerk's salary and spends the whole schoolday on the job. She collects the milk money, helps the children with their wraps, runs the duplicating machines and the projectors—overhead, film, and slide—and does a great many other tasks to free the professional staff for professional work. Because of the kind of person she is—outgoing, a leader in the community, and enthusiastic—she is an effective public relations officer for the school.

Each team meets at least once a week, on a flexible schedule set by the team leader. It decides what is to be taught in the next few days, in general how to teach it, who should teach it and in what sizes of groups, and what material and equipment is needed. The grouping of the children is flexible and varies with the circumstances; for example, for any particular activity children likely to learn better in small groups than in large are taught in small groups, and ideas or facts that can be taught as well in large groups as in small are taught in large groups. In fact, the Pittsburgh supervisors point out, team teaching as it is practiced in that city uses many kinds of structure: it groups children in many different ways; it gives highly individualized instruction whenever that is necessary, and it wipes out grade boundaries whenever that seems advisable.

This kind of flexibility would seem to require schoolhouses especially built for it, but Pittsburgh reports that its experiment is being carried out "in ordinary school buildings." The imagination and ingenuity of the teams have made up for the shortcomings of the buildings, the administrators say: "Where there's a *will* to make space, there's a *way* to make it."

Those who have worked on the team project in Pittsburgh have a few words of caution for any school that looks toward adopting team teaching:

"Do not start without a great deal of preliminary planning. We started long before we initiated it: we got together and discussed it, we read and we studied, we spent summer workshops on it, we planned adaptations to our need. What's more, we have never stopped the process; we're constantly changing, evaluating, studying.

"Don't imagine that it costs less money: it costs *more.* And don't think it makes things easier. With team teaching the teachers work harder and longer; the team stimu-

lates the members and they find themselves doing many things they might not have thought of doing had they been working alone."

Baltimore. Baltimore is trying team teaching in six centers, one in each of its administrative districts. For each center a school was chosen that had, first, a principal willing to give full support to a team-teaching program and, second, a dearth of fine teachers. Each center was given an extra teacher—a teacher with considerable experience, much skill in classroom teaching, and ability to stimulate and encourage his fellows. Presence of this teacher, who is the team leader, gives the entire staff more planning time, especially since it is not always necessary for the team to plan as a whole. Sometimes, for example, only two teachers need to plan together. In general, six teachers and six classes are considered the top limit for an effective team. The team draws also on resource teachers in art, music, and physical education, each of whom is assigned to several schools and works shoulder to shoulder with the classroom teachers on the team.

Team teaching, Baltimore finds, comes with the machinery for inservice training already built into it. Every teacher, whether new or inexperienced, finds great comfort and support in associating closely with other teachers who know the same children he knows; and since no two teachers see any child in exactly the same light, teachers on a team can help each other to gain a full understanding of their pupils and to find the best ways of teaching them. Evidence of the improving effect of team teaching is showing up in all the centers; in at least one school, the supervisors say, the team already is "working right out on the front line" and no longer is the "rescue effort" it was in the beginning.

Baltimore supervisors are beginning to think that team teaching carries within itself some force that builds up momentum as time goes on. "Once it gets going, if it's *real*, it will perpetuate itself without a structure," they say. "The teachers are so stimulated by it and like it so much that even if we were to say, 'This is the end of our experiment in team teaching,' they would still keep on working as a team."

The idea of large instructional groups gets less than an enthusiastic response from the Baltimore staff. Although teachers and supervisors generally agree that large groups are ideal for some types of material, they doubt that first-time presentation of anything is ever as effective in large groups as in small. "Our small groups," they say, "those temporary little groups that meet for a few days or a few weeks for a particular instructional purpose—these are pure gold."

There are prices to pay for team teaching, a supervisor says. Such cooperative planning and rearrangement of teaching activities demands more time on the part of teachers. It also requires a considerable amount of ingenuity in planning the composition of instructional groups and in scheduling the out-of-school facilities such as library or gym so that no damage is done to the flexibility of the daily program for classes in the team or for other classes in the school.

Denver. Denver is using teams of teachers at various levels throughout the school system. Teams are working in the first grade, the second and third grade, the intermediate grades, and the junior high school. Most of the teams are in schools in economically and culturally disadvantaged neighborhoods and represent the best qualified teachers the school system can get for them.

The teams consist of three teachers for every two classrooms; two teachers work together for a half day in each room. The time the teachers are together is most often spent on all phases of the language arts, for skill in the language arts is basic to the pupil's success in school. With two teachers, each child gets more individual attention and special instruction to meet his needs.

Flint. Flint, Mich., has experimented with team teaching but, as its representative at the conference implied, the experiment did not result in enough improvement to justify continuation of it.

The teams, which were taught in "standard classrooms," consisted of three persons—a teacher established in the system, a new teacher, and an aide; together they worked with about three times as many pupils as the average teacher has. Wherever the teams were used, the aides were considered great assets.

Flint, however, considers that it has had more success with team teaching in the junior and senior high schools than in the elementary schools.

The conferees were interested in getting objective evidence of the effects of team teaching. Did it really improve the instructional process? One of the conferees said that a member of the staff of his school system had made a study and found no difference at all between groups taught by team and groups not so taught. Conferees who had reported on the experience of their own schools were asked if they had data either to substantiate or to contradict the findings in this study.

The supervisor from Detroit said they were using control groups, were testing every year, and would soon have figures to show.

In Baltimore, evidence has been gathered on the effect on teachers. Judging from replies to questionnaires, teachers consider team teaching worth all the time and effort it calls for. But, the Baltimore supervisor said, there is no hallowed way to improve instruction other than to improve the teacher: to the extent that team teaching

CHANNELS OF COMMUNICATION

A monthly report on programs and developments both in and outside the Office of Education that are related to the educational uses of television, motion pictures, teaching machines, language laboratories, and other media of communication.—By SETH SPAULDING.

Educational media specialist

For the past several years the Department of Audiovisual Instruction has been marked by a self-questioning attitude. This attitude was reflected in its annual convention, held this year in April in Denver. The keynote speaker, David K. Berlo, chairman of the Department of Communication, Michigan State University, opened the meeting with these words:

> You are not in the instructional technology business, you are not in the message or media business, you are in the people business. You need high competence in messages and media; however, you also need understanding in predicting human behavior. There is a name for this message-media competence and social-scientific competence. We call it communication.

Mr. Berlo discussed the need for audiovisual theory, a core of knowledge for the training of communications specialists, and the kind of research that can be produced only by the social scientist and the media specialist in cooperation. When these needs are met, he said, the future audiovisualist and the practicing audiovisualist can receive the training they need. DAVI must find ways to reeducate its specialists now. Above all, he said, the audiovisual specialist must abandon his specialty to become a generalist.

The convention also heard reports on educational television, language laboratories, programed learning, 8-mm. film, the use of media in teaching, the latest developments in Federal legislation, and the "frontiers of technology."

Demonstrations at the DAVI convention were more on process than equipment, a break with the past. One demonstration was on the new media dissemination project sponsored by the Texas State Education Agency, a project initiated by a title VII, NDEA, contract.

Foreign language media materials

Title VII of the National Defense Education Act has contributed to the improvement of foreign language instruction through several types of research projects.

The title has made 18 grants, totaling $1,384,601, for research studies on the use of one or more media, singly or in combination, in the teaching of foreign languages. Some of these projects have discovered that a variety of carefully prepared, empirically tested materials, used with the language laboratory, accelerate language teaching, and they have helped to identify better ways of using language laboratories themselves.

Title VII has been a major source of support for research in programed instruction. The program has awarded over $3 million for 63 projects for research in programed instruction, many of which will be used increasingly in one form or other in the teaching of foreign languages.

The many title VII programs, both in research (part A) and dissemination (part B), have encouraged the use of television in foreign language instruction. Several pioneer television series in foreign language instruction were developed by title VII projects.

Title VII has supported several bibliographic projects, such as the Modern Language Association's "Materials List for Use by Teachers of Modern Languages" and the Education Media Council's Educational Media Index. Over 39,000 copies of the materials list have been distributed free since 1959. The Index, scheduled for completion in 1964, will list all instructional media materials available for instruction by subject and grade level. Each listing will be annotated. The Index will contain over 80,000 items and will be issued in 17 volumes.

The major effect of title VII in the language teaching field, however, is probably the awareness that has been aroused in teachers, school administrators, university faculty members, and other educators throughout the Nation to the fact that the instructional resources of education may be the crucial factor in resolving the quantity-quality problem facing edu-

encourages the master teachers we already have and helps to develop new ones, it justifies itself.

ALTHOUGH TEAM TEACHING dominated the discussion, a number of cities reported on their experiences with other types of organization for instruction. Phoenix, for instance, uses the traditional type—the self-contained classroom. "We don't have team teaching in the sense we are talking about it here," an administrator said. "We are taking the money we might have spent on reorganization and giving it to the teacher to spend on improving instruction in every way he can; and we're encouraging our principals to be instructional leaders. For extremes in ability and lack of ability we are using cluster grouping."

cation in the years ahead. One example of this awareness is the Texas Education Agency's new division of instructional materials. The division sends teams of teachers of various subjects throughout the State to demonstrate newer methods of instruction and the materials and devices which make these methods possible. The agency has a demonstration center in Austin where administrators and teachers can see the range of instructional materials and devices and can consult with staff members.

The many programs sponsored by part B of title VII, such as conferences, demonstrations, filmed reports, exhibits, and publications, have led to the acceptance of such innovations in education by administrators and teachers.

Media in the schools—1962

A two-part study of the availability and use of audiovisual media in public elementary and secondary schools, conducted under title VII, part B, NDEA, for the Office of Education by the Bureau of Social Science Research, Inc., was recently completed. The first part of the study, some results of which were reported in this column in January, estimated the amount of audiovisual equipment and materials available for use in school districts throughout the country in 1961. The second part of the study provides information on how these media were used in the schools in 1961–62. The second part of the survey was limited to school districts enrolling at least 150 pupils but not more than 24,999. Information was obtained from 11,531 teachers in 572 schools in 250 districts in all parts of the country.

Among the highlights of the survey, according to Eleanor Godfrey, study director, are these:

1. Over 95 percent of the schools surveyed had at least one 16-mm. projector, slide-filmstrip projector, and record player. Almost all of the secondary schools had tape recorders, and the majority had an opaque projector, television set, and overhead projector.

2. Most of the individual schools maintained a library of filmstrips and records, but few had more than a token collection of slides and tapes. Sound films were obtained primarily from educational sources outside the school district, especially when used for secondary instruction.

3. Administrators want to expand the use of present materials and to try new media, particularly in the field of language instruction through foreign language tapes and programed materials in English. The teachers, on the other hand, were generally satisfied with the present amount of use and less inclined to try newer media.

4. Teachers saw audiovisual materials more as teaching "aids" than as an integral part of teaching. Most of the respondents were familiar with the use of media through college courses and inservice training, and they found the equipment relatively easy to operate. About 86 percent had used some audiovisual material at least once. Yet they did not use the media extensively nor did they plan to use it in the near future.

5. The most important variable related to the frequency with which teachers used audiovisual materials and their evaluation of them was the subject taught, regardless of the size of the district or the school. The largest number of users were among the elementary school teachers, particularly the primary grade teachers. Most secondary school teachers did not use any media regularly. Only science, foreign language, and music teachers were frequent users in the high school.

6. Regardless of the subject or grade taught, the only audiovisual materials teachers used with any frequency were films, filmstrips, and records (or language tapes). Only records and tapes were used more than once a week by as many as 20 percent of the teachers.

7. At present, the audiovisual coordinator functions chiefly as a supply officer, ordering and scheduling equipment and materials. He does not have the time to advise teachers on how to use materials effectively or to provide them with information about the potentialities of new materials or equipment.

Inadequate classroom arrangements, poor light control, and lack of time in which to use audiovisual media were problems apparent to everyone.

The teachers were not opposed to the use of audiovisual media; they were just not convinced of its value for anything but enrichment of the curriculum.

Flint has an ungraded primary program and now is asking itself if it should not soon move into an ungraded plan at the intermediate level. In the primary program there are 10 reading levels to cover the 3-year span, and provision is made for a great variety of instructional materials. The goal is to give each child much opportunity to grow.

Denver leaves the decision on whether to "ungrade" to the principal and teachers of a school. Teachers and principal together study the idea, consider the reasons for and against it, and then, if they want to ungrade, go ahead and do it. "Every year," a supervisor said, "we seem to add another school to the list of ungraded schools."

In Baltimore the number of ungraded schools is growing fast. Four years ago, when the city started with a

study group of 4 principals, it had 3 such schools; in the next 3 years the number grew to 6, then 12, then 29. One development that has been particularly noticeable is that team teaching seems to lead naturally into nongradedness.

Nongrading, in fact, is being widely experimented with. In a group of supervisors from the very largest cities that met separately during one session of the conference, 25 indicated by a show of hands that their systems were experimenting with nongrading in some or all of their schools.

One supervisor referred to a practice in her school system of grouping the most backward children, and she raised a question about the wisdom of such a course. "When should we 'group' a child?" she asked. "At any time? Or never?"

Her question led to comments by the Office of Education staff members who have recently reviewed a number of research studies. The most enlightening results of their review, they said, was their increased understanding of the difficulties of attempting to divide children according to ability and their conclusion that, except for a limited purpose and on a short-term basis, it is unlikely that children can actually be divided into ability groups with any assurance of accuracy, especially children in their early years.

Other questions raised by the conferees about the value of different types of organization showed how deeply they were concerned over the extent to which these types enrich the school life of the child, whether he be bright or slow. They said, for example—

> "What worries me is whether, despite our new terms, we aren't still moving children through the same old levels at the same old pace."
>
> "A researcher suggested not long ago that the adjustment of a child to his school and his classroom is more important by far than any kind of grouping you can name."
>
> "Personality in relation to personality may hold the key to what makes the best teaching possible. If we could only discover some way of knowing—in advance—what teachers work best with what pupils!"
>
> "Maybe organization has very little to do with the success of instruction. Maybe the element of change in a classroom—changes in pace, changes in method, changes in content, changes in materials, all that—is the element that contributes most to success in the instructional process."

The report of the conference will conclude in the next issue with a discussion of curriculum and, in general, trends and issues in the elementary school today.

BONDS

for educational purposes

. . . sales, interest rates, et cetera . . .

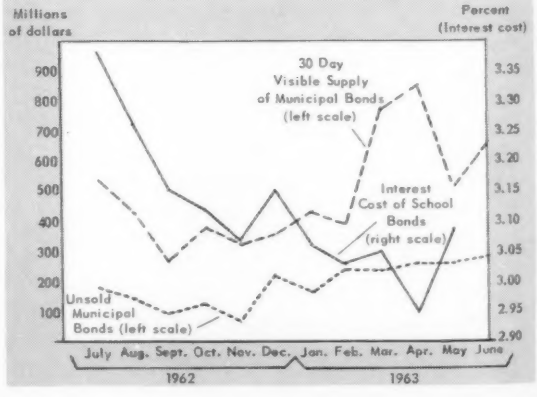
Public schools

By ELMER C. DEERING, *specialist on the financing of school facilities, Division of Elementary and Secondary Education, Office of Education.*

SCHOOL OFFICIALS often have only fragmentary information about the market to go on when they try to determine the best time to offer bonds for sale. They make their requests for sealed bids 15 to 30 days before the date of sale, and in that time market conditions can easily change.

Some of the factors in the prices of bonds are not always apparent. For example, there may be an abundance of money available for investments, but bonds may not be the greatest attraction. The supply of bonds offered for sale may be relatively small at a time when dealers are overstocked. When all factors indicate an unfavorable market for the seller, it is possible that there is an undersupply of bonds of one or more localities. On the other hand, when all factors seem favorable, there may be an oversupply of bonds of certain localities. Or, dealers may have an excess of long-term bonds and a shortage of short term.

Average net interest cost on all original school bond sales in relation to 30-day visible supply of municipal bond offerings and unsold bonds in major account, July 1962–June 1963



The relation between the average net interest cost of school bonds and the supply of bonds on the market is illustrated in the chart. It is generally true that the interest rates on bonds rise as the supply of bonds increases, and the prices fall and, conversely, fall as the supply decreases; and this is the relation that prevailed throughout the period covered by the chart, except for 3 months—October 1962 and April and May 1963.

A combination of circumstances may have been responsible for any one of these exceptions, but an analysis of the school bond sales in each of the 3 months furnishes at least part of the explanation. At the same time the reader should remember that the interest rates shown in the chart are for school bonds only, which comprise about a third of the municipal bonds on the market, whereas the supply of bonds—both the bonds just coming on the market, that is, the visible supply, and the supply of unsold bonds—represents *all* municipal bonds.

Analysis of the bond sales in the 3 months shows these interesting facts. In October 1962 one large sale at 2.82 percent was responsible for a decline in the net interest cost; had it not been for this sale, the other 182 sales would have made an average of 3.15 percent. In April 1963 nearly half of the rated bonds were Aaa and Aa, which produced an exaggerated drop in the average, to 2.92 percent (see April *School Life*); if distribution among the ratings had been normal, the average would have been 2.98 percent. And in May the sale of $40 million of school revenue bonds—about twice the usual amount—at a favorable average of 3.29 percent raised the average for the month from what would otherwise have been 3 percent to 3.09 percent.

Average net interest cost of Moody-rated bonds sold on primary market for public schools, by rating only: Annual 1959–60 to 1961–62; monthly, June 1962 to June 1963

Period	Aaa	Aa	A	Baa	Ba	All rated bonds
1959–60	3.26	3.63	3.77	4.21	4.55	3.84
1960–61	2.82	3.34	3.43	3.75	3.97	3.48
1961–62	2.84	3.23	3.19	3.52	3.93	3.27
1962						
June	2.82	2.83	3.14	3.48	3.93	3.21
July	.....	3.15	3.14	3.61	4.02	3.22
August	.....	3.02	3.08	3.43	3.82	3.17
September	2.83	2.80	3.08	3.47	3.75	3.10
October	.....	2.75	2.96	3.16	3.84	3.02
November	2.38	2.73	2.88	3.17	3.22	2.90
December	2.56	2.73	2.99	3.27	3.86	3.06
1963						
January	2.53	2.79	3.00	3.28	3.78	3.02
February	2.68	2.77	3.00	3.25	3.73	2.99
March	2.47	2.76	2.93	3.22	3.61	3.00
April	2.73	2.87	2.91	3.21	3.53	2.92
May	.....	2.74	2.94	3.30	3.38	3.02
June	.....	2.99	3.03	3.36	3.58	3.14

Source: Sales reported by the Daily Bond Buyer; ratings reported by Moody's Investors Service (rated bonds include 75–80 percent of all bonds for public schools).

Average net interest cost of Moody-rated bonds sold on primary market for public schools, by rating and by term of bond, for the latest quarter and month available

Term of bond	Aaa	Aa	A	Baa	Ba	All rated bonds
	Latest quarter (January–March 1963)					
Under 15 years	2.25	2.38	2.58	2.78	3.10	2.54
15–24 years	2.64	2.82	2.99	3.21	3.53	2.96
25 years and over	.....	2.93	3.02	3.33	3.82	3.15
All terms	2.62	2.78	2.98	3.25	3.69	3.01
	Latest month (June 1963)					
Under 15 years	.....	2.56	2.58	2.84	.....	2.62
15–24 years	.....	2.92	3.14	3.29	3.47	3.12
25 years and over	.....	3.19	3.13	3.44	3.72	3.33
All terms	.....	2.99	3.03	3.36	3.58	3.14

Source: Sales reported by the Daily Bond Buyer; ratings reported by Moody's Investors Service (rated bonds include 75–80 percent of all bonds for public school purposes).

Colleges and universities

By W. Robert Bokelman, *chief, Business Administration Section, Division of Higher Education, Office of Education, and* Elmer C. Deering.

FIFTY-FIVE BOND SALES for institutions of higher education were reported by the *Daily Bond Buyer* for May 1963; they brought in a total of $52 million—$39,193,000 for publicly controlled institutions, $12,897,000 for privately controlled. Private institutions continued, as they had done all through 1962 and during the first 4 months of 1963, to borrow for financing auxiliary facilities only, and the bonds they issued were all of the revenue type. Public institutions, however, continued to borrow for both academic and auxiliary facilities (out of every $10 realized from bond sales during the month, about $3 was earmarked for academic facilities); and they issued both general obligation and revenue bonds. The following list describes each one of the month's sales; that is, it names the issuing agency and specifies the amount sold, the term of the bonds, the net interest cost, and the kind of facility for which the proceeds of the sale will be used:

Agency	Amount (000)	Term (years)	Interest (percent)	Facility
PUBLIC INSTITUTIONS	$39,193			
Jacksonville State Coll.	680	1–39	[1] 3. 38	Residential
Troy State Coll.	[2] 866	1–39	3. 38	Residential
Arizona State Coll.	500	1–21	3. 49	Residential
Delaware State Coll.	530	1–20	2. 72	([3])
Univ. of Delaware	258	1–20	2. 72	Instruct'n'l
State of Hawaii	75	1–20	2. 93	Instruct'n'l
	175	1–20	2. 93	Campus improvements
	247	1–20	2. 93	Dispensary
	625	1–20	2. 93	Residential
Illinois State Normal Univ.	6,750	1–40	3. 68	Residential
Kansas State Univ.	95	1–14	3. 11	Residential
	275	1–19	3. 37	Residential
	800	20–39	[1] 3. 38	Residential
Morgan State Coll.	940	1–39	[1] 3. 50	Residential
Northwest Missouri State Coll.	570	1–14	3. 37	Residential
	2,070	15–39	[1] 3. 38	Residential
	260	1–8	3. 50	Residential
	210	9–13	3. 23	Residential
	250	14–18	3. 47	Residential
	1,545	19–38	[1] 3. 50	Residential
Univ. of New Mexico	2,500	1–9	2. 50	Instruct'n'l
Appalachian State Teachers Coll.	119	1–18	3. 47	Residential
	256	19–38	[1] 3. 50	Residential
Univ. of North Carolina.	602	1–29	3. 33	Residential
	398	30–39	[1] 3. 50	Residential
North Dakota State Bd. of Higher Education.	250	1–30	([4])	Residential
	750	1–30	([4])	Residential
	400	1–30	([4])	Residential
	550	1–30	([4])	Residential
	195	1–30	([4])	Residential
Univ. of Cincinnati	500	1–20	3. 89	Land
Central State Coll. (Okla.)	600	1–35	3. 74	Residential
Black Hills Teachers Coll.	152	1–13	3. 46	Student ctr-res
	573	14–38	[1] 3.50	Student ctr-res
General Beadle State Teachers Coll.	58	1–9	3. 38	Residential
	437	10–39	[1] 3. 50	Residential
State of Tennessee	8, 000	1–9	2. 88	Multipurpose
Stephen F. Austin Coll.	175	1–13	3. 28	Residential
	755	1–19	3. 48	Residential
	1, 942	20–39	[1] 3. 50	Residential
	1, 500	40–49	[1] 3. 38	Residential
Virginia Polytechnic Inst.	710	1–21	3. 09	Residential
PRIVATE INSTITUTIONS	12,897			
Univ. of Bridgeport	1, 700	1–39	[1] 3. 38	Residential
Mercer Univ.	604	1–39	[1] 3. 38	Residential
William Penn Coll.	300	1–39	[1] 3. 38	Residential
Sterling Coll.	379	1–39	[1] 3. 38	Residential
Centenary Coll.	$534	1–39	[1] 3. 38	Residential
Coll. of St. Benedict	[2] 650	1–39	3. 50	Residential
New York Univ.	3, 400	1–37	[1] 3. 13	Residential
High Point Coll.	200	1–39	[1] 3. 38	Residential
Methodist Coll.	1, 290	1–39	[1] 3. 38	Residential
Western Reserve Univ.	2, 600	1–49	[1] 3. 50	Res-dining
Reed Institute	367	1–38	[1] 3. 50	Residential
Middlebury Coll.	445	1–39	[1] 3. 38	Residential
Whitworth Coll.	428	1–39	[1] 3. 38	Res-dining

[1] Purchased by Community Facilities Administration, Housing and Home Finance Agency.
[2] HHFA bid.
[3] Use of funds not specified.
[4] Net interest cost not available.

Except for the five bond issues on which information on interest rates is not yet available, the sales in the foregoing list are grouped and summarized in the table that follows.

Bond sales for higher education: Number and amount of sales and average net interest cost, by type of institutional control, source of funds, type of bond, and type of facility, May 1963

Types of institutions, sources of funds, and types of bonds and facilities	Number of sales	Amount sold (000)	Percent of amount of all sales	Average net interest cost (percent)
PUBLIC INSTITUTIONS				
Source of funds				
HHFA	12	$12,007	32.4	3.44
Other	25	25,041	67.6	3.17
Type of bond:				
Revenue	29	26,588	71.8	3.40
General obligation	8	10,460	28.2	2.88
Type of facility:				
Academic	4	10,833	29.2	2.79
Instructional	3	2,833	7.6	2.53
Multipurpose	1	8,000	21.6	2.88
Auxiliary	30	24,960	67.4	3.48
Residential	27	23,988	64.7	3.48
Student center-residential	2	725	2.0	3.49
Dispensary	1	247	.7	2.93
Campus improvements	2	725	2.0	2.90
Not specified	1	530	1.4	2.72
Total, public institutions	37	37,048	100.0	3.26

Bond sales for higher education, May 1963—Continued

Types of institutions, sources of funds, and types of bonds and facilities	Number of sales	Amount sold (000)	Percent of amount of all sales	Average net interest cost (percent)
PRIVATE INSTITUTIONS				
Source of funds: HHFA	13	$12,897	100.0	3.34
Type of bond: Revenue	13	12,897	100.0	3.34
Type of facility: Auxiliary	13	12,897	100.0	3.34
Residential	11	9,869	76.5	3.30
Residential-dining	2	3,028	23.5	3.48
Total private institutions	13	12,897	100.0	3.34
ALL INSTITUTIONS				
Source of funds:				
HHFA	25	24,904	49.9	3.39
Other	25	25,041	50.1	3.17
Type of bond:				
Revenue	42	39,485	79.1	3.38
General obligation	8	10,460	20.9	2.88
Type of facility:				
Academic	4	10,833	21.7	2.79
Instructional	3	2,833	5.7	2.53
Multipurpose	1	8,000	16.0	2.88
Auxiliary	43	37,857	75.8	3.43
Residential	38	33,857	67.8	3.43
Residential-dining	2	3,028	6.1	3.48
Student center-residential	2	725	1.4	3.49
Dispensary	1	247	.5	2.93
Campus improvements	2	725	1.4	2.90
Not specified	1	530	1.1	2.72
Total, all institutions	50	49,945	100.0	3.28

During the first 5 months in 1963, private institutions sold all their bonds except one issue to the HHFA: Skidmore College sold one to the publicly financed Dormitory Authority of the State of New York. Among public institutions, however, only 28 percent of the total sales were to the HHFA. In each of these months the average net interest rate for all sales by all institutions was lower than in the corresponding month in 1962—except in May. Respective rates in 1962 and 1963 were 3.52 and 3.40 in January, 3.39 and 3.33 in February, 3.35 and 3.11 in March, 3.40 and 3.34 in April, and 3.07 and 3.28 in May.

Gallaudet College notes

BEGINNING THIS SUMMER, Gallaudet College's summer sessions in "Teaching the Deaf" will be open to qualified deaf and hard-of-hearing students, as well as to those with normal hearing. Sessions in previous years have been open only to students with normal hearing.

The 1963 program, scheduled for July 8–August 16, will offer 12 credit courses in such subjects as audiology in teaching speechreading, speech, and language to the deaf; the guidance and counseling of the deaf child; psychological research on the deaf; and methods of teaching mathematics, science, composition, reading, and literature to the deaf. In addition, the session will offer a noncredit course in fingerspelling, the language of signs, and the simultaneous method of communication.

Summer sessions in "Teaching the Deaf" are mostly on the graduate level. Students can earn the degree of master of science in education by attending sessions in four consecutive summers.

GALLAUDET COLLEGE is developing editing and coding procedures and a classification system for the Hearing Ability Survey being conducted by the National Health Survey Division of the Public Health Service. The study is one part of the annual program of interviews with 42,000 households to obtain information on current health problems of the Nation. The college will analyze the data on hearing ability to determine the prevalence of hearing loss, and to provide the answers to related questions on causes and degree of hearing impairment, use of hearing aids, and other hearing problems.

Interviews will probably be concluded in August 1963. PHS plans to release the information in 1964.

THE PROGRAM offered by the Counseling Center for the Deaf at Gallaudet College includes a practicum program to train psychological counselors for the deaf through supervised professional experience in psychological counseling, testing, and evaluation, and consultation with other professional workers. It takes from 1,500 to 2,000 hours. Students pass progressively to more advanced clinical activities.

The program is open to second-year students taking graduate work in counseling psychology, clinical psychology, school psychology, rehabilitation counseling, and counseling and guidance; and students with a minimum of a master's degree in any of these specialties who are employed as counselors.

Information about the placement of students who have completed the program or application procedures should be addressed to Frederick L. Klein at the college.

Notes on the Notable

Fulbright-Hays Act awards

More than 800 qualified U.S. graduate students will study or do research during the 1964–65 academic year in 49 foreign countries through the Fulbright-Hays Act of 1961. They will receive one of three types of awards: U.S. Government full grants; joint U.S.-other government grants; and U.S. Government travel-only grants.

Full grants will provide round-trip transportation, tuition, books, and maintenance, for study in 30 countries.

Joint U.S.-other government grants will be offered cooperatively by the U.S. Government (travel expenses) and a foreign government (tuition and maintenance) for study in 18 countries.

Travel-only grants will supplement maintenance and tuition scholarships received from a university, a private donor, or a foreign government, for study in eight countries.

The Institute of International Education administers the program for the U.S. Department of State.

Support for nonsponsored students

The Institute of International Education will include, for the first time, nonsponsored foreign students in its summer orientation and English language training for foreign students studying in the United States. "Nonsponsored" students are those not receiving aid from the U.S. Government and who are only partly assisted by any organization, foundation, or other agency. Some of them are on scholarships from a college or university.

Programs this summer will include 50 full scholarships to three 8-week language training courses and 150 tuition waivers for 2- to 6-week campus-sponsored orientation programs. The language training will be offered at the University of Arizona, the University of Kansas, and Bucknell University; the orientation programs at Lewis and Clark College, Boston University, the University of Rochester, Southern Illinois University, and Southern Methodist University. In addition, the institute has arranged 1-month stays with U.S. families for 400 students.

Both graduate and undergraduate students will be eligible. Selections will be limited, however, to students from the Far East, Latin America, Africa, and the Near East.

The Institute of International Education administers the summer programs for the U.S. Department of State.

Adults in distributive education

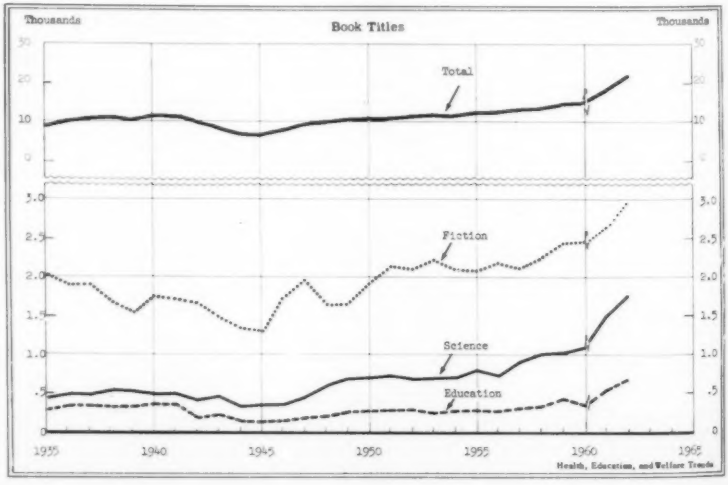
Of the 321,000 persons enrolled in distributive education in 1962, 85 percent were in adult and postsecondary school programs, according to the Distributive Education Branch of the Office of Education. The branch also reports that 21 States now have full-time postsecondary school programs in such subjects as retail management, wholesaling, marketing, and fashion merchandising. In addition, more and more States are offering special distributive education courses for adults.

The fact that distributive education programs receiving Federal aid are restricted to employed persons may account for the seeming underemphasis on this type of program for secondary school students.

Two popular programs for adults are for the small businessman. One is for the man just starting in business to help him to understand employee relations, financing, management, and taxation. Hagerstown, Md., began the first of these programs about 2 years ago. Its public school system offered evening seminars over its closed-circuit television system to local businessmen. Another type of program for the small businessman is on the export-import trade and is designed to acquaint him with its advantages and disadvantages. It is usually offered by a local college or university. The Office of Education is preparing a curriculum outline for these seminars based on a guide prepared by the State of Florida.

Both programs for small businessmen are carried out by public vocational education agencies in cooperation with the Small Business Administration and the Department of Commerce.

For 20 years (1935–55) the number of book titles published annually in the United States remained at about 11,000. But since 1955 the number has been rising. The sharpest rise has been in the last 2 years. In 1962 over 20,000 titles came out. The picture is much the same for the three leading categories of books published—fiction, science, and education. Though the number of titles in the first two categories has fluctuated since 1935, titles in all three categories have risen considerably in the last 2 years.



OFFICE OF EDUCATION PUBLICATIONS IN 1962–63

This list includes only publications for sale by the Superintendent of Documents, Government Printing Office, Washington 25, D.C. Free publications will be listed next month.

Biennial Survey of Education in the United States

CHAPTER I, STATISTICAL SUMMARY OF EDUCATION: 1957–58, 35 cents (OE–10003–58).

Cooperative Research

COOPERATIVE RESEARCH PROJECTS: FISCAL 1961, 45 cents (OE–12004–61).

NEEDED RESEARCH IN THE TEACHING OF ENGLISH: PROCEEDINGS OF A PROJECT ENGLISH RESEARCH CONFERENCE, 55 cents (OE–30010).

ROLE OF THE SCHOOL IN PREVENTION OF JUVENILE DELINQUENCY: A RESEARCH SYMPOSIUM SPONSORED BY U.S. OFFICE OF EDUCATION AND PHI DELTA KAPPA, 35 cents (OE–25034).

Education Directory, 1962–63

PART 1: STATE GOVERNMENTS, 30 cents (OE–20004–63).

PART 2: PUBLIC SCHOOL SYSTEMS, $1 (OE–20005–63).

PART 3: HIGHER EDUCATION, 75 cents (OE–50000–63).

PART 4: EDUCATION ASSOCIATIONS, 50 cents (OE–10001–63).

Elementary and Secondary Education

AIDS FOR TEACHING SCIENCE: A SUGGESTED CHECKLIST FOR A SCIENCE PROGRAM, 15 cents (OE–29034).

ANALYSIS OF RESEARCH IN THE TEACHING OF MATHEMATICS, 1959 AND 1960, 30 cents (OE–29007–60).

ENROLLMENT IN PUBLIC AND NONPUBLIC ELEMENTARY AND SECONDARY SCHOOLS, 1950–80, 15 cents (OE–24007).

FALL 1962, ENROLLMENT, TEACHERS, AND SCHOOLHOUSING IN FULL-TIME PUBLIC ELEMENTARY AND SECONDARY DAY SCHOOLS, 35 cents (OE–20007–62).

THE IMPACT OF URBANIZATION ON EDUCATION, 10 cents (OE–10021).

LOCAL SCHOOL BOARDS: ORGANIZATION AND PRACTICES, 50 cents (OE–23023).

THE MAJOR PRINCIPLES OF PHYSICS, CHEMISTRY, AND GEOLOGY OF IMPORTANCE FOR GENERAL EDUCATION, 20 cents (OE–29025–A).

THE MAJOR PRINCIPLES OF THE BIOLOGICAL SCIENCES OF IMPORTANCE FOR GENERAL EDUCATION, 25 cents (OE–29026–A).

MERIT SALARY PROGRAMS IN SIX SELECTED SCHOOL DISTRICTS, 30 cents (OE–23026).

NONPUBLIC SECONDARY SCHOOLS: A DIRECTORY, 1960–61, SHOWING ACCREDITATION STATUS, ENROLLMENT, CLASSROOM TEACHERS, AND OTHER DATA, 75 cents (OE–20043).

PARTNERS IN THE SCHOOL ENTERPRISE, 10 cents (OE–20036).

RESEARCH IN THE TEACHING OF SCIENCE, JULY 1957–JULY 1959, 35 cents (OE–29000–59).

SCHOOL FIRES: PREVENTION, CONTROL, PROTECTION, 55 cents (OE–21017).

SOURCE MATERIALS FOR SECONDARY SCHOOL TEACHERS OF FOREIGN LANGUAGES, 25 cents (OE–27001B).

STAFF PERSONNEL ADMINISTRATION: SELECTED PRACTICES AND ISSUES, 25 cents (OE–23027).

STATISTICS OF STATE SCHOOL SYSTEMS: 1959–60, 70 cents (OE–20020–60).

STEPS TO EXCELLENCE: A PROGRAM TO IMPROVE SCIENCE TEACHING, 15 cents (OE–29037).

SUPERVISION FOR QUALITY EDUCATION IN SCIENCE, 25 cents (OE–29043).

WHAT HIGH SCHOOL PUPILS STUDY: A NATIONAL SURVEY OF THE SCHOLASTIC PERFORMANCE OF PUPILS OF VARIOUS ABILITIES, 60 cents (OE–33025).

Higher Education

CASEBOOK ON CAMPUS PLANNING AND INSTITUTIONAL DEVELOPMENT: TEN INSTITUTIONS, HOW THEY DID IT, $1.25 (OE–51003).

EARNED DEGREES CONFERRED, 1959–1960: BACHELOR'S AND HIGHER DEGREES, $1.50 (OE–54013–60).

ENGINEERING ENROLLMENTS AND DEGREES, 1961, 35 cents (OE–54006–61).

ENROLLMENT FOR ADVANCED DEGREES: FALL 1960, $2.75 (OE–54019–60).

GUIDE TO UNDERGRADUATE PROGRAMS IN MATHEMATICS, 25 cents (OE–56008).

HIGHER EDUCATION BASIC STUDENT CHARGES, 1961–62: TUITION AND FEES, BOARD AND ROOM, 40 cents (OE–52005–62).

HIGHER EDUCATION SALARIES: 1961–62, 40 cents (OE–53015–62).

INTERNAL STRUCTURE: ORGANIZATION AND ADMINISTRATION OF INSTITUTES OF HIGHER EDUCATION, 45 cents (OE–53012).

LAND-GRANT COLLEGES AND UNIVERSITIES: 1862–1962, 35 cents (OE–50030).

OPENING (FALL) ENROLLMENT IN HIGHER EDUCATION, 1962: INSTITUTIONAL DATA, 30 cents (OE–54003–62).

PROGRESS IN THE CONSTRUCTION OF HIGHER EDUCATION FACILITIES: DETAILED ANALYSIS, 1958–59; TRENDS ANALYSIS, 1951–59, 40 cents (OE–51002).

REPORTER: CLEARINGHOUSE OF STUDIES IN HIGHER EDUCATION, 30 cents (OE–50004–4).

SABBATICAL LEAVE IN AMERICAN HIGHER EDUCATION: ORIGIN, EARLY HISTORY, AND CURRENT PRACTICES, 30 cents (OE–53016).

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